

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTARHH1626

PASSWORD:

***** RECONNECTED TO STN INTERNATIONAL *****

SESSION RESUMED IN FILE 'HCAPLUS' AT 15:04:23 ON 25 MAY 2007

FILE 'HCAPLUS' ENTERED AT 15:04:23 ON 25 MAY 2007

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	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	654.40	845.34
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-78.00	-78.00

>>
>>
>> file reg
FILE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (>>).

	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	654.40	845.34
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-78.00	-78.00

FILE 'REGISTRY' ENTERED AT 15:04:29 ON 25 MAY 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 24 MAY 2007 HIGHEST RN 935837-89-1
DICTIONARY FILE UPDATES: 24 MAY 2007 HIGHEST RN 935837-89-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information

Structure attributes must be viewed using STN Express query preparation.

>> s 19 sss sam
SAMPLE SEARCH INITIATED 15:04:46 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 23899 TO ITERATE

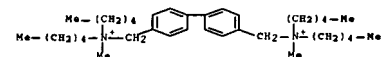
8.4% PROCESSED 2000 ITERATIONS 4 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 468729 TO 487211
PROJECTED ANSWERS: 541 TO 1369

L10 4 SEA SSS SAM L9

>> d scan

L10 4 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dimethyl-N,N,N',N'-tetrapentyl-
(9CI)
MF C16 H62 N2
CI COM



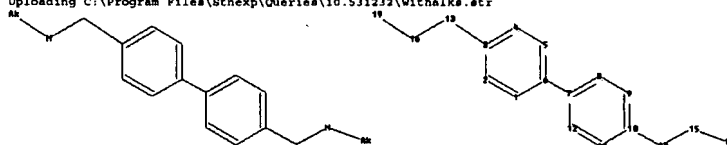
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L10 4 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN [1,1'-Biphenyl]-2,2',4,4'-tetracarboxamide, 6,6'-diamino-N,N',N'',N'''-
tetraakis(2,3-dihydroxypropyl)-3,3',5,5'-tetraiodo- (9CI)
MF C28 H36 I4 N6 O12

on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

>>
Uploading C:\Program Files\Stnexp\Queries\10.531232\withalks.str



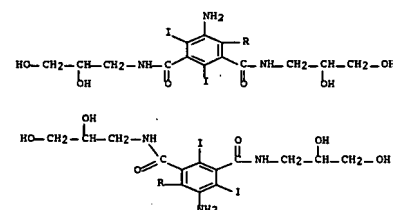
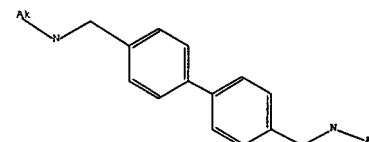
chain nodes :
13 14 15 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
ring/chain nodes :
15 16
chain bonds :
3-13 6-7 10-14 13-16 14-15 15-18 16-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
13-16 14-15 15-18 16-19
exact bonds :
3-13 6-7 10-14
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

Connectivity :
15:1 M minimum RC ring/chain 16:1 M minimum RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 18:CLASS 19:CLASS

L9 STRUCTURE UPLOADED

>>

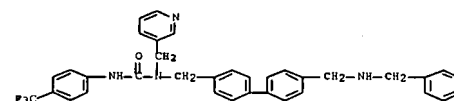
>> d
L9 HAS NO ANSWERS
L9 STR



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

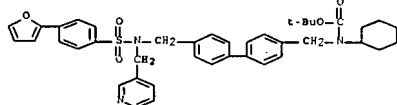
L10 4 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN Urea, N-(3-pyridinylmethyl)-N-[[4'-[[[4-(2-furanyl)phenyl]sulfonyl](3-
pyridinylmethyl)amino]methyl](1,1'-biphenyl)-4-yl]methyl]-N'-[4-(trifluoromethyl)phenyl]-, trihydrochloride
(9CI)
MF C34 H30 F3 N5 O . 3 Cl H



● 3 HCl

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L10 4 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN Carbamic acid, cyclohexenyl[[4'-[[[4-(2-furanyl)phenyl]sulfonyl](3-
pyridinylmethyl)amino]methyl](1,1'-biphenyl)-4-yl]methyl]-,
1,1-dimethylethyl ester (9CI)
MF C41 H45 N3 O5 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

--> 1
1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

--> 19 csm sam
SAMPLE SEARCH INITIATED 15:05:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 23899 TO ITERATE

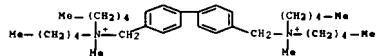
8.4% PROCESSED 2000 ITERATIONS 1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 468729 TO 487231
PROJECTED ANSWERS: 31 TO 445

L11 1 SEA CSS SAM L9

--> d scan

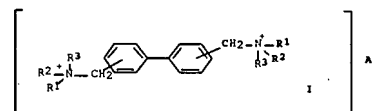
L11 1 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dimethyl-N,N,N',N'-tetrapentyl-
(9CI)
MF C36 H62 N2
CI COM



ALL ANSWERS HAVE BEEN SCANNED

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002060856	A1	20020808	WO 2002-JP733	20020130
W: AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DP, EC, EE, ES, FI, GB, GD, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004331499	A	20041125	JP 2001-24979	20010131
JP 2004331503	A	20041125	JP 2001-321942	20011019
JP 2004331504	A	20041125	JP 2001-348261	20011114
AU 2002230104	A1	20020812	AU 2002-230104	20020130
PRIORITY APPL. INFO.:				
JP 2001-24979 A 20010131				
JP 2001-321942 A 20011019				
JP 2001-348261 A 20011114				
WO 2002-JP733 W 20020130				
OTHER SOURCE(S): CASREACT 137:154752; MARPAT 137:154752				
OI				



AB The title compds. 1 [R1 represents C5-20 alkyl; R2 and R3 are the same or different and each represents C1-20 alkyl; A is (Xn)m; X is an inorg. or organic anion; n is the valency of the anion X; and m is a value giving a product of n by m of 2] are prepared. 4,4'-bis(N,N-dimethyl-N-octylammoniomethyl)biphenyl dichloride (II) showed min. bactericidal concentration (MBC) of < 1 ppm against Pseudomonas aeruginosa ATCC 27583, vs. MBC of 32 ppm shown by Benzalkonium chloride. II at 2000 mg/kg orally did not cause death in rats.

IT 161535-99-SP 405160-01-2P 405160-02-3P
405160-03-4P 445290-17-5P 445290-18-7P
445290-20-0P 445290-21-1P 445290-22-2P
445290-23-3P 445290-24-4P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of biphenyl moiety-containing quaternary ammonium salts as antibacterial, antifungal, and antiprotozoa agents)

RN 161535-99-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N'-hexabutyl-, dichloride (9CI) (CA INDEX NAME)

--> 19 csm full
FULL SEARCH INITIATED 15:05:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 476301 TO ITERATE

100.0% PROCESSED 476301 ITERATIONS 214 ANSWERS
SEARCH TIME: 00.00.06

L12 214 SEA CSS FUL L9

--> file hcaplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 172.55 1017.89
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE 0.00 -78.00

FILE 'HCAPLUS' ENTERED AT 15:05:44 ON 25 MAY 2007
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FILE COVERS 1907 - 25 May 2007 VOL 146 ISS 23
FILE LAST UPDATED: 24 May 2007 (20070524/SD)

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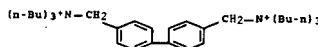
This file contains CAS Registry Numbers for easy and accurate substance identification.

--> 112
L13 79 L12

--> 113 and py < 2003
22885407 PY < 2003
L14 59 L13 AND PY < 2003

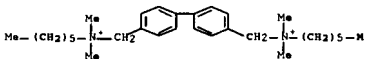
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L14 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 2002:594804 HCAPLUS Full-text
DOCUMENT NUMBER: 137:154752
TITLE: Preparation of biphenyl moiety-containing quaternary ammonium salts as antibacterial, antifungal, and antiprotozoa agents
INVENTOR(S): Shibata, Shigeyuki; Nagata, Toshiyuki; Kourai, Hiroki; Kume, Masayoshi; Harada, Katsuyoshi
PATENT ASSIGNEE(S): Toagosei Co., Ltd., Japan
SOURCE: PCR Int. Appl., 64 pp.
COHEN: PIXXD2
DOCUMENT TYPE: Patent



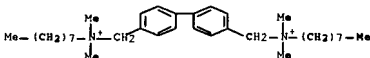
●2 Cl⁻

RN 405160-01-2 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dihexyl-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)



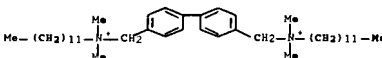
●2 Cl⁻

RN 405160-02-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N'-tetramethyl-N,N'-dioctyl-, dichloride (9CI) (CA INDEX NAME)



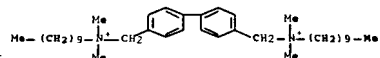
●2 Cl⁻

RN 405160-03-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-didodecyl-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

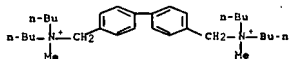


●2 Cl⁻

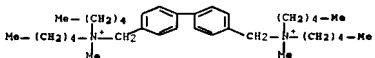
RN 445290-17-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-didecyl-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

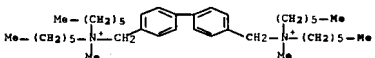
RN 445290-19-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N'-tetraoctyl-, N,N'-dimethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 445290-20-0 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dimethyl-, N,N,N',N'-tetrapentyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 445290-21-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N'-tetrahexyl-, N,N'-dimethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 445290-22-2 HCAPLUS

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

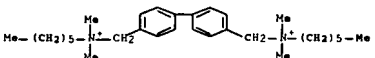
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1191016	A1	20020327	EP 2001-810884	20010913 <--
EP 1191016	B1	20040324		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, SI, ST, LT, LV, FI, RO				
AT 262505	T	20040415	AT 2001-810884	20010913
ES 2215872	T3	20041016	ES 2001-1810884	20010913
US 2002061832	A1	20020523	US 2001-956318	20010919 <--
US 6730655	B2	20040504		
CN 1344709	A	20020417	CN 2001-140676	20010920 <--
JP 2002187874	A	20020705	JP 2001-287663	20010920 <--
			EP 2000-810865	A 20000921

PRIORITY APPL. INFO.:

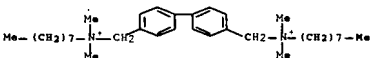
OTHER SOURCE(S): MARPAT 136:264834
AB [P-R1R2R3N-CH2C6H4C6H4CH2N-R4R5R6-p'] 2A [I: R1 = C5-16 alkyl, Ph, Ph(C1-10 alkyl); R2, R3, R5, R6 = C1-4 alkyl; R4 = C4-16 alkyl, Ph, Ph(C1-10 alkyl); A = monovalent anion; with proviso], useful for the title purpose, were manufactured by quaternization of the parent biphenyl halides p-XCH2C6H4C6H4CH2X-p' (X = halo, monovalent anion-forming group) with tertiary amines R1R2R3N (R1, R2, R3 as above) and amines R4R5R6N (R3, R4, R5 as above). For example, I [R1 = R2 = R4 = R5 = Me, R3 = R6 = CH3(CH2)7, A = Cl-] (preparation from p-ClCH2C6H4C6H4CH2Cl-p' and N,N'-dimethyloctylamine given) inhibited Escherichia coli with MIC50 1 ppm.

IT 405160-01-2P 405160-02-3P 405160-03-4P
405160-04-5P
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses) (manufacture of diquaternary ammonium comds. as antimicrobials, disinfectants and preservatives)

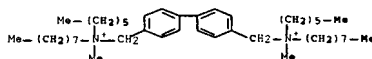
RN 405160-01-2 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dihexyl-, N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

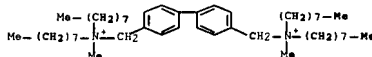
RN 405160-02-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N'-tetramethyl-, N,N'-dioctyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

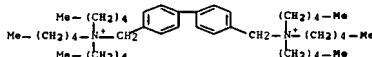
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dihexyl-, N,N'-dimethyl-, N,N'-dioctyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 445290-23-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dimethyl-, N,N,N',N'-tetraoctyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

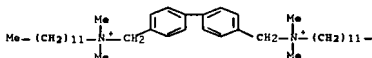
RN 445290-24-4 HCAPLUS
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● 2 Cl⁻

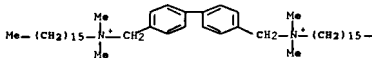
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:236875 HCAPLUS Full-text
DOCUMENT NUMBER: 136:264834
TITLE: Manufacture of diquaternary ammonium compounds as antimicrobials, disinfectants and preservatives
INVENTOR(S): Reinehr, Dieter; Oche, Dietmar; Sauter, Hanspeter; Hoffatetter, Fernand
PATENT ASSIGNER(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German

RN 405160-03-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-didodecyl-, N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 405160-04-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N'-dihexadecyl-, N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

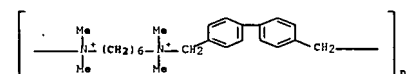
L14 ANSWER 3 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:578597 HCAPLUS Full-text
DOCUMENT NUMBER: 135:124156
TITLE: Bactericide combinations in detergents
INVENTOR(S): Elmore, Richard; Houghton, Mark Phillip
PATENT ASSIGNER(S): Robert McBride Ltd., UK
SOURCE: Brit. UK Pat. Appl., 53 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2354771	A	20010404	GB 1999-23253	19991001 <--

PRIORITY APPL. INFO.:

AB The detergent comprises a bactericide in combination with an anionic, cationic, nonionic or amphoteric surfactant which has a C12-18 alkyl group as the longest chain attached to the hydrophilic moiety. Creduret 50 (hydrogenated ethoxylated castor oil) 50, citric acid 12, formalin 10, sodium alkyl benzene sulfonate (C12-20) alkyl 1, perfume white line 0.5, detergent enzyme savingase 0.2, and bactericide Pr 4-hydroxybenzoate 1.0 parts formed a detergent, showing reduction activity after contact 2.
IT 63943:38-4
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)

(bactericide combinations in detergents)
 RN 63943-38-4 HCAPLUS
 CN Poly([dimethyliminio]-1,6-hexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

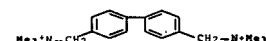
● 2 Cl⁻

L14 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:154456 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:360620
 TITLE: Two new silicate hydrates (C20H30N2)8·[Si8O20]2·110H2O and (C20H30N2)4·[Si8O20]·42H2O, and their implications for the role of non-covalent interactions in high-silica zeolite synthesis
 AUTHOR(S): Shantz, D. F.; Lobo, R. F.
 CORPORATE SOURCE: Center for Catalytic Science and Technology, Department of Chemical Engineering, University of Delaware, Newark, DE, 19716, USA
 SOURCE: Microporous and Mesoporous Materials (2001), 43(1), 127-136
 CODEN: MIMMFJ; ISSN: 1387-1811
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

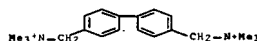
AB Two new silicate hydrates, (C20H30N2)8·[Si8O20]2·110H2O (1) and (C20H30N2)4·[Si8O20]·42H2O (2) were prepared and their structures determined using single-crystal x-ray diffraction. The structures of 1 and 2 are formed from silicate octameric cubes bridged by H-bonded H2O mole. Crystal data for 1: P.hivn.1, Z = 1, a = 18.508(1) Å, b = 20.393(1) Å, c 20.784(1) Å, α 97.747(4), β 92.249(5), γ 116.396(3)°; 2: P.hivn.1, Z = 1, a = 14.345(1) Å, b = 14.855(1) Å, c 16.162(1) Å, α 80.339(5), β 84.916(5), γ 67.805(5)°. Both 1 and 2 have apertures formed by H-bonded H2O mole, which are approx. 9.5 × 5.5 and 12.0 × 9.0 Å in 1 and 2, resp. The structures of both hydrates have numerous weak C-H...O hydrogen bonds between the organic cations and H2O mole. The importance of these and organic-inorg. electrostatic forces are discussed in the context of zeolite synthesis.

IT 339078-47-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (for preparation of silicate 1,1'-biphenylbis(methylammonium) salt)

RN 339078-47-6 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N'-hexamethyl-, (9CI) (CA INDEX NAME)

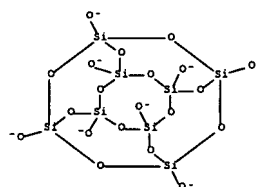


IT 339078-49-9P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, crystal structure and hydrogen bonding in)
 RN 339078-49-8 HCAPLUS
 CN [1,1'-Biphenyl]-2,2'-dimethanaminium, N,N,N',N',N'-hexamethyl-, salt with silicic acid (H8Si8O20) (4:1), dotetracontahydrate (9CI) (CA INDEX NAME)
 CM 1
 CRN 339078-48-7
 CMF C20 H30 N2 . 1/4 O20 Si8
 CM 2
 CRN 339078-47-6
 CMF C20 H30 N2



CM 3

CRN 48219-90-5
 CMF O20 Si8



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:795681 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:35606
 TITLE: Preparation of multibinding piperidinylindole derivatives as therapeutic agents that modulate 5-HT receptors
 INVENTOR(S): Marqueses, Daniel; Griffin, John H.; Choi, Seok-Ki
 PATENT ASSIGNOR(S): Advanced Medicine, Inc., USA

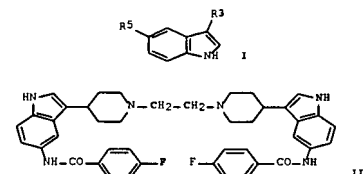
SOURCE: PCT Int. Appl., 190 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 31
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964044	A1	19991216	WO 1999-US12751	19990607
W: AB, AL, AM, AT, AU, AZ, BA, BB, BO, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KO, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, QA, QN, GW, ML, MR, NE, SN, TD, TG				
CA 2318894	A1	19991216	CA 1999-2318894	19990604
AU 9945435	A	19991230	AU 1999-45435	19990604
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CA 2319068	A1	19991216	CA 1999-2319068	19990607
CA 2319159	A1	19991216	CA 1999-2319159	19990607
CA 2319174	A1	19991216	CA 1999-2319174	19990607
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CA 2319496	A1	19991216	CA 1999-2319496	19990607
CA 2319751	A1	19991216	CA 1999-2319751	19990607
CA 2319756	A1	19991216	CA 1999-2319756	19990607
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CA 2321273	A1	19991216	CA 1999-2321273	19990607
AU 9944234	A	19991230	AU 1999-44234	19990607
AU 9944253	A	19991230	AU 1999-44253	19990607
AU 9944265	A	19991230	AU 1999-44265	19990607
AU 9945491	A	19991230	AU 1999-45491	19990607
AU 9945520	A	19991230	AU 1999-45520	19990607
AU 9946727	A	19991230	AU 1999-46727	19990607
AU 9946751	A	19991230	AU 1999-46751	19990607
AU 9946752	A	19991230	AU 1999-46752	19990607
AU 9946754	A	19991230	AU 1999-46754	19990607
EP 1019360	A1	20000719	EP 1999-930123	19990607
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EP 1080080	A1	20010307	EP 1999-930158	19990607
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EP 1083917	A1	20010321	EP 1999-927291	19990607
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EP 1083918	A1	20010321	EP 1999-927317	19990607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1083933	A1	20010321	EP 1999-927331	19990607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1083888	A1	20010321	EP 1999-928425	19990607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1085887	A2	20010328	EP 1999-928349	19990607

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI	A2	20010328	EP 1999-930157	19990607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI	A1	20010502	EP 1999-930156	19990607
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JP 2002517420	T	20020618	JP 2000-553004	19990607
JP 2002517459	T	20020618	JP 2000-553102	19990607
JP 2002517463	T	20020618	JP 2000-553110	19990607
CA 2319497	A1	19991216	CA 1999-2319497	19990608
CA 2319643	A1	19991216	CA 1999-2319643	19990608
CA 2319651	A1	19991216	CA 1999-2319651	19990608
CA 2320926	A1	19991216	CA 1999-2320926	19990608
CA 2321120	A1	19991216	CA 1999-2321120	19990608
CA 2321152	A1	19991216	CA 1999-2321152	19990608
CA 2319650	A1	19991229	CA 1999-2319650	19990608
AU 9943368	A	19991230	AU 1999-43368	19990608
AU 9943376	A	19991230	AU 1999-43376	19990608
AU 9946747	A	19991230	AU 1999-46747	19990608
AU 9952039	A	19991230	AU 1999-52039	19990608
AU 9946776	A	20000110	AU 1999-46776	19990608
EP 1082289	A1	20010314	EP 1999-930185	19990608
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EP 1085847	A2	20010328	EP 1999-928520	19990608
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EP 1085868	A1	20010328	EP 1999-930150	19990608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1085894	A1	20010328	EP 1999-937155	19990608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1102597	A1	20010530	EP 1999-955431	19990608
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SG 87323	A1	20011016	SG 1999-2842	19990608
JP 2002517442	T	20020618	JP 2000-553068	19990608
US 6288055	B1	20010911	US 2000-499476	20000207
ZA 2000003475	A	20011011	ZA 2000-3475	20000711
ZA 2000004083	A	20011112	ZA 2000-4083	20000810
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ZA 2000004087	A	20011113	ZA 2000-4087	20000810
ZA 2000004084	A	20011119	ZA 2000-4084	20000810
ZA 2000004561	A	20011130	ZA 2000-4561	20000831
ZA 2000004565	A	20011130	ZA 2000-4565	20000831
US 2003087306	A1	20030508	US 2001-15534	20011213
PRIORITY APPLN. INFO.:			US 1998-084666	P 19980608
			US 1998-92938P	P 19980715

10/531.232	17 of 118	Robert Havlin
US 1998-96606P	P 19980814	
WO 1999-US1786	W 19990604	
US 1999-327044	BI 19990607	
WO 1999-US11803	W 19990607	
WO 1999-US11805	W 19990607	
WO 1999-US12669	W 19990607	
WO 1999-US12673	W 19990607	
WO 1999-US12727	W 19990607	
WO 1999-US12728	W 19990607	
WO 1999-US12730	W 19990607	
WO 1999-US12731	W 19990607	
WO 1999-US12751	W 19990607	
WO 1999-US12778	W 19990607	
WO 1999-US12782	W 19990607	
US 1999-327904	BI 19990608	
WO 1999-US12626	W 19990608	
WO 1999-US12770	W 19990608	
WO 1999-US12876	W 19990608	
WO 1999-US12907	W 19990608	
WO 1999-US12989	W 19990608	
WO 1999-US12994	W 19990608	
WO 1999-US12995	W 19990608	
US 2000-493462	BI 20000128	

OTHER SOURCE(S): MARPAT 132:35606
OI

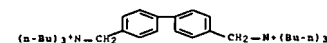


AB Novel multibinding piperidindole compds, LpXq [where L = a ligand capable of binding to a 5-HT receptor; X = a linker; p = 2-10; q = 1-2], that modulate 5-HT receptors are disclosed. Preferred ligands are of formula I [where R3 and R5 = independently point of attachment of the linker, H, alkyl, heterocyclic, heteroaryl(alkyl), amidoalkyl, (di)alkylaminosulfonylalkyl, arylsulfonylalkyl, heterocyclosulfonylalkyl, arylcarbonylamino, alkylsulfonyl, or alkylsulfonylalkyl]. Over 140 multibinding compds., formed from two piperidindole derivs. and a difunctional linker, were prepared. For example, condensation of 5-(4-fluorobenzoyl)amino-3-(piperidin-4-yl)-1H-indole with 1,2-dibromoethane at 72° in DMF, after workup and chromatog., yielded the dimer II. Compds. of this invention are useful in the treatment of migraine, headache, itch, motion sickness, depression, emesis, memory loss, anxiolytic disorders, obesity, gastrointestinal disorders, and irritable bowel syndrome (no data). The multibinding compds. provide greater biol. and/or therapeutic effects than the aggregate of the unlinked ligands due to their multibinding properties (no data). Combinatorial arrays, methods of synthesis, and methods of assaying the dimeric and multimeric compds. are also embodied by the invention.

IT 252354-64-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); THU (Therapeutic use);

10/531.232 12 of 118 Robert Havlin
compds., which includes highly flexible, and, hence, otherwise almost inaccessible for conventional conformational sampling techniques, peptide mols. As a result, a relatively small number of extended pharmacophore models were obtained, whose average, together with the original Catalyst model, could be used to search proprietary 3D-databases for potential candidates. The results of such a search are also reported.

IT 223596-05-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); THU (Therapeutic use);
CN 223596-05-2 HCAPLUS
[1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N'-hexabutyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RS FORMAT

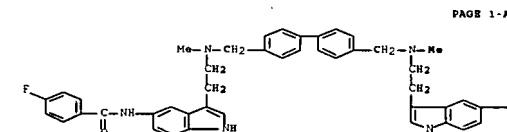
L14 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:883577 HCAPLUS Full-text
DOCUMENT NUMBER: 131:288078
TITLE: Electrically conductive TCNQ complexes of aromatic ionenes
AUTHOR(S): Hochberg, Gerd C.; Becher-Weg, J. J.
CORPORATE SOURCE: Inst. of Organic Chemistry, Univ. of Mainz, Mainz, D-55128, Germany
SOURCE: Polymer International (1995), 38(2), 119-24
CODEN: PLVIBI; ISSN: 0959-8103
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB New types of complex salts of 7,7',8,8'-tetracyanoquinodimethane with aromatic ionenes and their model compds. were prepared. The elec. conductivity and the activation energy were measured and discussed in relation to their structure. The effects of the nature of the aromatic unit, and the flexibility and rigidity of the polymer backbone were compared with the corresponding model compds. The effects of frequency and temperature are discussed in terms of the mol. structure of the complex. The elec. conductivity at room temperature of the 1:1 polymer complex salts was between 2 + 10-4 and 7 + 10-5 S/cm, while that of the model complex salts was between 1.3 + 10-3 and 6.3 + 10-3 S/cm. The activation energy was 0.14 eV on average. The limitation of the concept of polycationic complex salts of TCNQ for elec. conductive plastics for com. application in the plastics industry is discussed.

IT 150601-11-9DP, reaction products with lithium tetracyanoquinodimethane
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (elec. conductive TCNQ complexes of aromatic ionenes)
RN 150601-11-9 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, dihydrobromide, polymer with 4,4'-bis(bromomethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1
CRN 150601-10-8
CMF C18 H24 N2 . 2 Br H

10/531.232	18 of 118	Robert Havlin
BIOL (Biological study); PREP (Preparation); USES (Uses)		
[target compound; preparation of multibinding piperidindole derivs. as therapeutic agents that modulate 5-HT receptors and are useful for the treatment of migraine]		
RN 252354-64-6 HCAPLUS		
CN Benzamide, N,N'-[[1,1'-biphenyl]-4,4'-diylbis[methylene(methylimino)-2,1-ethanediy]-1H-indole-3,5-diyl]]bis[4-fluoro- (9CI) (CA INDEX NAME)		



PAGE 1-A

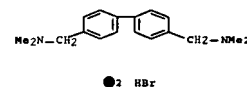
PAGE 1-B

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RS FORMAT

L14 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:177960 HCAPLUS Full-text
DOCUMENT NUMBER: 130:332289
TITLE: Formulation of 3D-pharmacophore models for bradykinin B2-receptor antagonists
AUTHOR(S): Pineda, L. Felipe
CORPORATE SOURCE: Molecular Simulations, Inc., San Diego, CA, 92121, USA
SOURCE: Zeitschrift fuer Physikalische Chemie (Munich) (1999), 209(1), 111-131
CODEN: ZPCFAX; ISSN: 0044-3336
PUBLISHER: R. Oldenbourg Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To make a further contribution to the elucidation of the essential structural features for bradykinin (BK) antagonism, 3D-pharmacophore models were extracted from a training set consisting of 9 relatively rigid, small organic, non-peptide mols., reported to be more or less active, competitive BK B2-receptor antagonists. This was accomplished by the expert system Catalyst. The information contained in 1 of these models was then used to identify relevant structural features and perform Consensus Mol. Dynamics simulations including, in addition to the non-peptide antagonists set, 2 prototype linear peptide antagonists, [D-Phe7]-BK and D-Ary-[Hyp3, Th15, D-Tic7, Oic8]-BK (H0R140), 2 cyclic antagonists, cyclo-Cys-[Cys6, D-Phe7]-BK, cyclo-Lys-[Oic8, D-Phe7]-BK, and BK itself, as well. This combined approach allowed to identify regions of the conformational space shared by this series of

10/531.232	20 of 118	Robert Havlin
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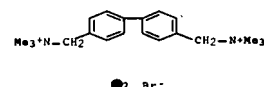


● 2 Br

CM 2
CRN 20248-86-6
CMF C14 H12 Br2



IT 170032-94-7DP, reaction products with lithium tetracyanoquinodimethane
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (model compound; elec. conductive TCNQ complexes of aromatic ionenes)
RN 170032-94-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N'-hexamethyl-, dibromide (9CI) (CA INDEX NAME)



L14 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:388938 HCAPLUS Full-text
DOCUMENT NUMBER: 123:18595
TITLE: Structure activity relationships of non-peptide bradykinin B2 receptor antagonists
AUTHOR(S): Salvino, Joseph M.; Soane, Peter R.; Douly, Brent D.; Awad, Mohamed A.; Hoyer, Denton; Ross, Tina Morgan; Dolle, Roland E.; Houck, Wayne T.; Faunce, David M.; Sawatz, David G.
CORPORATE SOURCE: Department of Medicinal Chemistry, Sterling Winthrop Pharmaceutical Research Division, Collegeville, PA, 19426-0900, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1995), 5(4), 357-62
CODEN: BMCLEB; ISSN: 0960-894X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AS A series of non-peptide competitive antagonists of the human IMR 90 fetal lung fibroblast bradykinin B2 receptor were designed and synthesized. Compound 15 bound with an affinity constant $K_i = 60$ nM. The SAR leading to the design of these non-peptide antagonists is described.

IT 161535-99-5P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (structure activity relations of non-peptide bradykinin B2 receptor antagonists)

RN 161535-99-5 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N'-hexabutyl-, dichloride (9CI) (CA INDEX NAME)

●2 Cl⁻

L14 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:581396 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:181396
 TITLE: Synthesis and properties of aromatic ionenes
 AUTHOR(S): Hochberg, Gerd C.; Schulz, Rolf C.
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Germany
 SOURCE: Polymer International (1993), 32(3), 309-17
 CODEN: PLYIIS; ISSN: 0959-8103
 DOCUMENT TYPE: Journal
 LANGUAGE: English

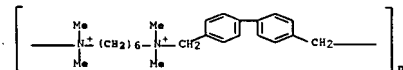
AB Bis(bromomethyl) aromatic hydrocarbons are polycondensed with ariylenebis(dimethylamines) or Dabco, or tetrakis(bromomethyl)benzene is polymerized with Kryptofix[2.2] to provide the title polymers. The structure of the products, their synthesis and their solubility are described. The ionenes are not, or only in small amounts, water soluble. The best solubility can be achieved by mixtures of polar protic and aprotic solvents. Variations of the counterion produces sufficient solubility in THF. The ionenes show a typical polyelectrolyte effect. The thermal stability of the aromatic ionenes and the glass transition temperature is dominated by the nature of the counterion. The molecular weight of oligomers can be described by using a combination of a conductive titration method and an ion-selective electrode.

IT 150601-11-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and NMR spectra and solubility of)

RN 150601-11-9 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, dihydrobromide, polymer with 4,4'-bis(bromomethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

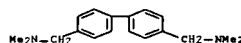
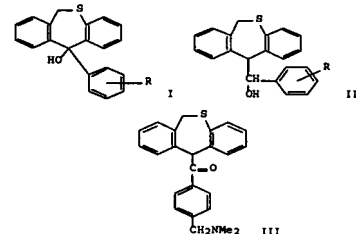
CN 1
 CRN 150601-10-8
 CMP C18 H24 N2 . 2 Br H

biphenyl]-4,4'-diylmethylene dichloride (9CI) (CA INDEX NAME)

●2 Cl⁻

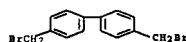
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L14 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1990:198103 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:198103
 TITLE: Potential antidepressants. Synthesis of 6,11-dihydrodibenzol[b,e]thiepin-11-yl 4-(dimethylaminomethyl)phenyl ketone and of some related compounds
 AUTHOR(S): Sindelar, Karel; Holubek, Jiri; Svatek, Emil; Matousova, Oluse; Metysova, Jirina; Protiva, Miroslav
 CORPORATE SOURCE: Res. Inst. Pharm. Biochem., Prague, 130 60, Czech.
 SOURCE: Journal of Heterocyclic Chemistry (1989), 26(5), 1325-30
 CODEN: JHTCAD; ISSN: 0022-152X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 112:198103
 GI



●2 HBr

CM 2
 CRN 20246-86-6
 CMP C14 H12 Br2



RL: PRP (Properties)
 (solv. of, anion effect on)

L14 ANSWER 10 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:525266 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:125266
 TITLE: A quaternary ammonium salt for imparting antimicrobial activity to an ophthalmic composition
 INVENTOR(S): Teao, Fu Pao; Nicolson, Paul C.; Littlefield, Susan Ann
 PATENT ASSIGNOR(S): Ciba-Geigy A.-G., Switz.
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

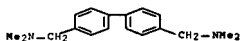
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9312820	A1	19930708	WO 1992-US11012	19921218 <--
W: AU, BB, BG, BR, CA, CH, FI, HU, JP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SE, UA, US				
RM: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
US 5256420	A	19931026	US 1991-812780	19911223 <--
AU 9333292	A	19930728	AU 1993-33292	19921218 <--
ZA 9209947	A	19930623	ZA 1992-9947	19921222 <--
PRIORITY APPLN. INFO:			US 1991-812780	A2 19911222
			WO 1992-US11012	A 19921218

AB A polymeric quaternary ammonium compound improves disinfectant and preservative qualities in compns. which come into contact with the eye or with ophthalmic devices, such as contact lenses. A contact lens disinfecting solution containing polyquaternary compound having a recurring unit of [N-Me2(CH2)6N-Me2CH2-p-C6H4-p-C6H4-CH2]2Cl⁻ was formulated.

IT 63943-38-4, Polyquat D 17-1242
 RL: BIOL (Biological study)
 (ophthalmic compns. and contact lens cleansers containing)
 RN 63943-38-4 HCAPLUS
 CN Poly[(dimethyliminio)-1,6-hexanediyl(dimethyliminio)methylene[1,1'-

AB Reactions of dibenzo[b,e]thiepin-11(6H)-one with 2-, 3- and 4-(dimethylaminomethyl)phenylmagnesium bromide afforded the tertiary alcs. I (R = 2-, 3-, 4-CH2NMe2). The secondary alcs. II were prepared similarly. The oxidation of II (R = 4-CH2NMe2) with tetrabutylammonium chromate in chloroform afforded the desired ketone III. Compds. I, II, and III were tested as potential antidepressants but with the exception of some effects in the test of potentiation of yohimbine toxicity in mice, they proved inactive in this line.

IT 63405-50-5P 126631-43-4P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and pharmacol. activity of)
 RN 63405-50-5 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

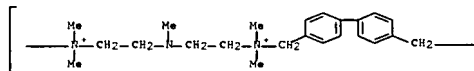
L14 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1989:575880 HCAPLUS Full-text
 DOCUMENT NUMBER: 111:175880
 TITLE: Modification of cis-1,4-polyisoprene-based composites with polyquaternary ammonium salts
 AUTHOR(S): Ovcharov, V. I.; Panchuk, I. P.; Ivanova, N. P.; Burmistr, M. V.; Degtyarev, O. E.; Yanova, T. P.
 CORPORATE SOURCE: USSR
 SOURCE: Voprosy Khimii i Khimicheskoi Tekhnologii (1988), 66, 87-92
 CODEN: VKKCAJ; ISSN: 0321-4095
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

AB The effect of the structure of polymeric quaternary ammonium salts (PQAS) and their low-mol.-weight analogs (St4N Br and PhCH2NMe3 Cl) on the effectiveness of the modification of rubber composites based on cis-1,4-polyisoprene was studied. The PQAS were synthesized by the interaction of tertiary diamines and dihalides. Tests were made with filled compns. containing SKI-3-01 rubber 100, S 2, sulfenamide Ta 0.8, ZnO 5, stearin 1, C black P-234 50, and PQAS or quaternary ammonium salt 1 part. The S-vulcanization was most effectively accelerated by poly(4,4'-dibenzylene-N,N',N',N'-pentamethyldiethylenetriammonium chloride). The activity of the PQAS was largely determined by the structure of the initial dihalides.

IT 125557-79-1

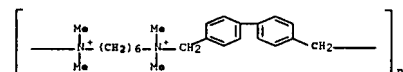
RL: USBS (Uses)
 (modification with, of isoprene rubber, for increased vulcanization rate)
 RN 120557-79-1 HCAPLUS
 CN Poly[(dimethyliminio)-1,2-ethanedyl(methylimino)-1,2-ethanedyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

PAGE 1-B

L14 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1989:214510 HCAPLUS Full-text
 DOCUMENT NUMBER: 110:214510
 TITLE: Effect of polyquaternary ammonium salts on properties of compositions produced from butadiene-styrene rubbers
 AUTHOR(S): Ovcharov, V. I.; Panchuk, I. F.; Burmistr, M. V.; Onishchenko, Z. V.
 CORPORATE SOURCE: Dnepropetr. Khim.-Tekhnol. Inst., Dnepropetrovsk, USSR
 SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1988), 31(12), 109-12
 CODEN: IVUKAR; ISSN: 0579-2991
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB The vulcanization rate, cohesive strength, and stress-strain properties of SBR-30ARK butadiene-methylstyrene rubber blend were enhanced by modification with ionene polymers. The vulcanization activity of the ionenes depended mainly on the structure of the initial dichloride, whereas their vulcanization activity decreased with increasing mol. weight of substituents in the dichloride structure. Maximum vulcanization activity was observed for poly(p-xylylene-N,N',N'',N'''-pentamethyldiethylenetriammonium chloride) and poly(4,4'-dibenzylene-N,N',N'',N'''-pentamethyldiethylenetriammonium chloride).
 IT 120557-79-1
 RL: USBS (Uses)
 (vulcanization accelerators, for butadiene-methylstyrene rubber)
 RN 120557-79-1 HCAPLUS
 CN Poly[(dimethyliminio)-1,2-ethanedyl(methylimino)-1,2-ethanedyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

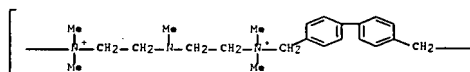
L14 ANSWER 15 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1987:556318 HCAPLUS Full-text
 DOCUMENT NUMBER: 107:156318
 TITLE: Auxiliary agent combination and its use as a textile-finishing agent
 INVENTOR(S): Abel, Heinz; Topf, Rosemarie; Gunter, Franz
 PATENT ASSIGNER(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 24 pp.
 CODEN: EPXIXW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 225281	A1	19870610	EP 1986-810500	19861103 <-
EP 225281	B1	19890614		
R: BE, CH, DE, FR, GB, IT, LI				
US 4728337	A	19880301	US 1986-925027	19861030 <-
CA 1278402	C	19910102	CA 1986-522298	19861106 <-
AU 8664951	A	19870514	AU 1986-64951	19861107 <-
AU 589463	B2	19891012		
ZA 8608485	A	19870624	ZA 1986-8485	19861107 <-
JP 62117887	A	19870529	JP 1986-264918	19861108 <-
JP 01027189	B	19890526		

PRIORITY APPL. INFO.: CH 1985-4802 A 19851108
 AB The quaternary salts [R1COR12N(R3)(R4)ON(R5)(R6)2X2COR2]2- 2Y- (Q = alkylene, optionally containing O or bearing OH; R1, R2 = C6-24 aliphatic group; R3-6 = alkyl, hydroxyalkyl, alkoxyalkyl; X1, X2 = O, NH; Z1, Z2 = alkylene; Y = anion of a strong acid) are useful in finishing textiles, especially post-treatment in wool dyeing. Chlorinated wool was dyed with a mixture of chrome, cobalt, and azo dyes, rinsed, heated in an aqueous solution of 0.6% HOCH(CH2N(Me)2)(CH2)3NHCOCH2NH4+)2.2Cl- (I) and 0.6% 4,4'-bis(chloromethyl)biphenyl-N,N,N',N''-tetramethyl-1,6-hexanediamine copolymer (II) at bath ratio 1:30, pH 5, and 40° for 10 min to give a dyeing with fastness to potting, washing, and light 4, 5, and 4-5, resp., and no dry or wet soiling; vs. 4, 5, 4-5, and strong, resp., without I, and 1, 3-4, 4-5, and none, resp., without I and II.
 IT 63943-38-4
 RL: USBS (Uses)
 (afterfinishes, for dyed wool)
 RN 63943-38-4 HCAPLUS
 CN Poly[(dimethyliminio)-1,6-hexanedyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

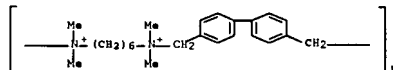
● 2 Cl⁻

PAGE 1-B

L14 ANSWER 14 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1988:13908 HCAPLUS Full-text
 DOCUMENT NUMBER: 108:13908
 TITLE: Processing holograms
 INVENTOR(S): Butcher, David Walter
 PATENT ASSIGNER(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 28 pp.
 CODEN: EPXIXW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 230208	A2	19870729	EP 1986-810568	19861205 <-
EP 230208	A3	19890809		
R: BE, CH, DE, FR, GB, IT, LI, SE				
US 4769300	A	19880906	US 1986-940048	19861210 <-
JP 62157085	A	19870713	JP 1986-293588	19861211 <-
PRIORITY APPL. INFO.: GB 1985-30457 A 19851211				

AB Holograms which contain gelatin as the binder are prepared by exposure with coherent light, developing, and heating before processing, simultaneously or subsequently, with a solution containing an onium compound comprising ≥ C10-18 alkyl, or having total number of C atoms in the substituent group ≥ 21, or a polymeric compound comprising 21 onium group in the repeating unit. Thus, a hologram was treated in a solution of cetylpyridinium bromide after development and bleach-fixing to obtain a bathochromic shift of 25 nm.
 IT 63943-38-4
 RL: USBS (Uses)
 (in hologram processing)
 RN 63943-38-4 HCAPLUS
 CN Poly[(dimethyliminio)-1,6-hexanedyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

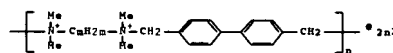
● 2 Cl⁻

L14 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1987:412609 HCAPLUS Full-text
 DOCUMENT NUMBER: 107:12609
 TITLE: Aqueous system supplied with biocide
 INVENTOR(S): Lorenz, Joachim; Grade, Reinhardt
 PATENT ASSIGNER(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 16 pp.
 CODEN: EPXIXW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

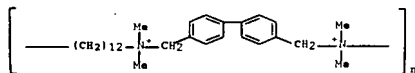
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 203892	A2	19861203	EP 1986-810222	19860522 <-
EP 203892	A3	19880107		
EP 203892	B1	19901003		
R: DE, FR, GB, IT, NL				
US 4752318	A	19880621	US 1986-865719	19860522 <-
CA 1276796	C	19901127	CA 1986-509945	19860526 <-
JP 61278396	A	19861209	JP 1986-123191	19860528 <-
JP 2572571	B2	19970116		

PRIORITY APPL. INFO.: CH 1985-2244 A 19850528

GI

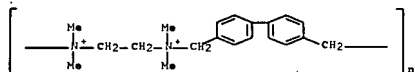


AB Special polymeric quaternary ammonium compds. I (n = 4-60, m = 2-20, X = F, Cl, B, or I) are used for control of bacteria, algae, and other microorganisms in cooling water cycles, flotation tanks, and industrial ponds. In treatment of cooling water with I (m = 6, X = Cl), with fresh water feed to dilute the biocide to 50% of its original concentration in 24 h, after 3 days and 7 days, the number of microorganisms was 9 and 10/ml, resp., vs. 1.1 × 10³ each without the biocide. Each subsequent dose of biocide decreased the microorganism concentration to 0 and the concentration increased slowly thereafter.
 IT 63943-34-0 63943-35-1 63943-38-4
 RL: OCCU (Occurrence)
 (biocide, for fouling prevention in water systems)
 RN 63943-34-0 HCAPLUS
 CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)



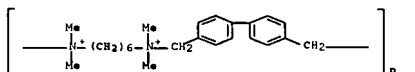
●2 Cl-

RN 63943-35-1 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyldimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



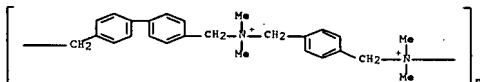
●2 Cl-

RN 63943-38-4 HCAPLUS
CN Poly[(dimethyliminio)-1,6-hexanediyldimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



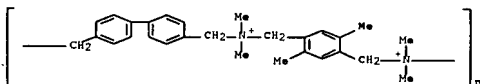
●2 Cl-

L14 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1985:541536 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 103:141536
TITLE: Synthesis of tertiary amine hydrochlorides derived from diphenyl
AUTHOR(S): Oakay, Enis; Levent, Tennur
CORPORATE SOURCE: Erciyeslik Fak., Hacettepe Univ., Ankara, Turk.
SOURCE: Journal of Faculty of Pharmacy of Istanbul University (1984), 20, 23-8
CODEN: ISFMA9; ISSN: 0367-7524
DOCUMENT TYPE: Journal
LANGUAGE: English
OI



●2 Cl-

RN 96043-12-8 HCAPLUS
CN Poly[(dimethyliminio)methylene(2,5-dimethyl-1,4-phenylene)methylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

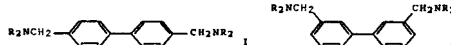


●2 Cl-

L14 ANSWER 19 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1984:68778 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 100:68778
TITLE: Study of the reactivity of alkylaromatic tertiary diamines
AUTHOR(S): Burmistr, M. V.; Svetkin, Yu. V.
CORPORATE SOURCE: USSR
SOURCE: Voprosy Khimii i Khimicheskoi Tekhnologii (1983), 70, 6-10
CODEN: VKKCAJ; ISSN: 0321-4095
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The reactivity of 20 alkylarom. tertiary diamines (N,N,N',N'-tetramethyl-p-xylylenediamine [19851-38-8], N,N,N',N'-tetramethyl-m-xylylenediamine [19851-44-6], etc.) was evaluated by MO LCAO calcul. of electron d. on N atoms (assuming that the reactivity increases with increasing electron d. on N atoms) and by determination of the rate constant in polymerization with p-xylylene dichloride [623-25-6]. The presence of Me substituent in aromatic rings of the diamines increased the electron d. on N atoms, and Me groups in the o-position with respect to N were most effective. The presence of CH2NMe2 and Cl substituents in aromatic rings decreased electron d. on N atoms. The polymerization rate constant did not correlate with electron d. on N atoms indicating the importance of steric factors.

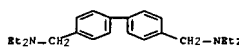
IT 63405-50-5
RL: PRP (Properties)
(reactivity of, electron d. on N atoms and rate constant in ionene formation in relation to)
RN 63405-50-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)



AB Reaction of the corresponding bis(bromomethyl)biphenyls with secondary amines under pressure at 100-170° gave the diamines I (R2N = Et2N, pyrrolidino) and II (R2N = Et2N, pyrrolidino, morpholino, piperidino), prepared as potential analgesics.

IT 98496-40-3
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as potential analgesic)

RN 98496-40-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetraethyl-, dihydrochloride (9CI) (CA INDEX NAME)



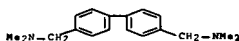
●2 HCl

L14 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1985:167201 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 102:167201
TITLE: Study of the formation of polyionenes from diaryl dihalides and tertiary diamines
AUTHOR(S): Burmistr, M. V.; Degtyarev, O. E.; Nordvintseva, L. P.
CORPORATE SOURCE: USSR
SOURCE: Voprosy Khimii i Khimicheskoi Tekhnologii (1984), 74, 102-5
CODEN: VKKCAJ; ISSN: 0321-4095
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The rate constant of polymerization of Me2NCH2-p-C6H4CH2NMe2 (I) [19851-38-8] or its derivs. with ClCH2-p-C6H4-Zn-p-C6H4Cl (II; Z = O, n = 1) [2362-18-7] is higher than that with II (Z = CH2 or S, n = 0-1), due to the greater influence of quaternary N atoms on the reactivity of a CH2Cl group in the I (or I derivative)-II (Z = O, n = 1) dimer. The polymer with II (Z = O, n = 1) is likely to proceed via formation of dimers, whereas that with II (Z = CH2, n = 1) [14568-83-3] via sequential addition. The kinetic data were confirmed by calculating the bond order between quaternary N and Cl atoms in dimers. The highest mol. wts. (reduced viscosities) were observed for II (Z = CH2, n = 1) copolymers.

IT 63943-50-0P 96043-12-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

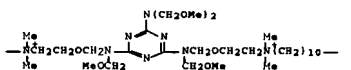
RN 63943-50-0 HCAPLUS
CN Poly[(dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



L14 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1983:127643 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 98:127643
TITLE: Aftertreatment for improving the fastness properties of dyes and optical brighteners on a hydroxy group-containing substrate
INVENTOR(S): Valenti, Salvatore
PATENT ASSIGNER(S): Sandoz A.-G., Switz.
SOURCE: Brit. UK Pat. Appl., 16 pp.
CODEN: BAKXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2098620	A	198211124	GB 1982-14146	19820514 <-
GB 2098620	B	19850227		
US 4436524	A	19840313	US 1982-376902	19820510 <-
CH 672388	A3	19891130	CH 1982-2892	19820510 <-
CH 672388	B5	19900531		
NL 8201976	A	19821216	NL 1982-1976	19820513 <-
BE 893196	A1	19821116	BE 1982-208100	19820514 <-
AU 8283731	A	19821125	AU 1982-83731	19820514 <-
FR 2511404	A1	19830218	FR 1982-8504	19820514 <-
FR 2511404	B1	19850510		
ZA 8203367	A	19831228	ZA 1982-3367	19820514 <-
ES 513234	A1	19840101	ES 1982-512234	19820514 <-
JP 57193585	A	19821127	JP 1982-81687	19820517 <-
BR 8202863	A	19830426	BR 1982-2863	19820517 <-
US 4484927	A	19841127	US 1984-573648	19840125 <-
GB 2141724	A	19850103	GB 1984-14942	19840612 <-
GB 2141724	B	19851204		
PRIORITY APPL. INFO.:				
			DE 1981-3119645	A 19810516
			DE 1981-3124195	A 19810619
			US 1982-376902	A3 19820510
			GB 1982-14146	A3 19820514

OI



AB The wetfastness of direct (especially Cu complex) or reactive dyes or optical brighteners on cellulosic substrates is improved by aftertreatment with an agent comprising (a) a

DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2498195	A1	19820723	FR 1981-975	19810120 <--
FR 2498195	B1	19850524		
FR 2471996	A1	19810626	FR 1979-31430	19791221 <--
FR 2471996	B1	19850524		
US 4395541	A	19830726	US 1980-217402	19801217 <--
DE 8005423	A	19810622	DK 1980-5423	19801219 <--
BR 8008412	A	19810714	BR 1980-8412	19801219 <--
GB 2066830	A	19810715	GB 1980-40868	19801219 <--
NL 8006920	A	19810716	NL 1980-6920	19801219 <--
JP 56098233	A	19810807	JP 1980-179104	19801219 <--
JP 03000414	B	19910108		
DE 3048076	A1	19810903	DE 1980-3048076	19801219 <--
DE 3048076	C2	19901213		
CA 1164595	A1	19840327	CA 1980-367250	19801219 <--
CH 649771	A5	19850614	CH 1980-9436	19801219 <--
AT 8006204	A	19860915	AT 1980-6204	19801219 <--
AT 382879	B	19870427		

PRIORITY APPLN. INFO.: FR 1979-31430 19791221

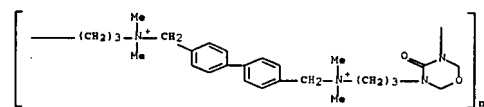
AB Polymers are prepared which contain repeating units N-RR1ZNR4ZNR5Z2N-R2R3Z3 2X- (I) with R-R3 = C1-20 hydrocarbyl groups, Z and Z2 = C1-20 alkylene or arylene, Z1 = CO or SO2, R4-R5 = H or lower alkyl or R4R5 = CH2OCH2, Z3 = polyoxyalkylene, and X- is a common anion. The polymers are useful for the treatment of textiles, skin, and hair and as dispersing, emulsifying, and flocculating agents. Thus, (Me2NCH2CMe2CH2NH)2SO2 32.2, ClCH2CH2(OCH2CH2)2Cl 18.7, and water 50 g were refluxed for 200 h to prepare a copolymer [79085-91-9] containing repeating units I with R-R3 = Me, R4-R5 = H, Z = Z2 = CH2CMe2CH2, Z1 = SO2, Z3 = (CH2)3[O(CH2)2]2, and X = Cl.

IT 79078-16-3P 79078-18-5P

RL: PREP (Preparation)

RN 79078-16-3 HCAPLUS

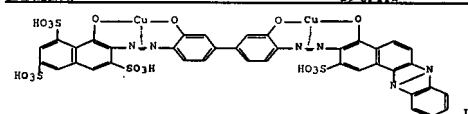
CN Poly[(4-oxo-2H-1,3,5-oxadiazine-3,5(4H,6H)-diyl)-1,3-propanediyl(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylenedimethyliminio)-1,3-propanediyl dichloride] (9C1) (CA INDEX NAME)



●2 Cl-

RN 79078-18-5 HCAPLUS

CN Poly[sulfonylimino(2,2-dimethyl-1,3-propanediyl)(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylenedimethyliminio(2,2-dimethyl-1,3-propanediyl)amino dichloride] (9C1) (CA INDEX NAME)



AB The wetfastness of cellulosic textiles dyed with reactive or direct dyes is improved when the polybasic amino compound aftertreating agent used to fix the dye forms an alkali-insol. precipitate with the dye. Thus, 20 parts of a reaction product prepared from diethylenetriamine and 84 parts dicyandiamide and neutralized with dilute H2SO4 was dissolved in 1000 parts water and the solution was treated with a solution of 10 parts I in 500 parts water. The precipitate formed was not soluble in dilute NaOH (pH 12). A cotton fabric dyed with I was padded with a liquor containing 130 g/L product obtained by mixing 25 parts above neutralized reaction product with 15 parts MgCl2.6H2O and 100 parts 50% aqueous dimethyloldihydroxyethyleneurea [1854-26-8]. After squeezing to a liquor take-up of .apprx.60% and drying at 175-180°, the fabric displayed good fastness to wet processing as well as improved crease resistance.

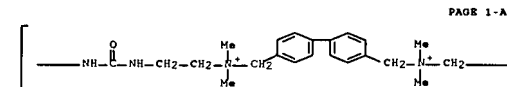
IT 69420-49-1 69420-66-2

RL: US28 (Uses)

(fixation agents, containing methylol compound creaseproofing agents, dyed cotton textile finishing by, for improved fastness of direct and reactive dyes to wet processing)

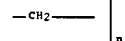
RN 69420-49-1 HCAPLUS

CN Poly[iminocarbonylimino-1,2-ethanediyl(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylenedimethyliminio)-1,2-ethanediyl dichloride] (9C1) (CA INDEX NAME)



●2 Cl-

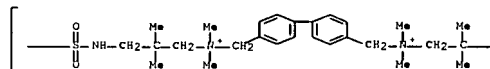
PAGE 1-B



RN 69420-66-2 HCAPLUS

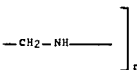
CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylenedimethyliminio)-1,3-propanediyl dichloride] (9C1) (CA INDEX NAME)

PAGE 1-A



●2 Cl-

PAGE 1-B



L14 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:617951 HCAPLUS Full-text

DOCUMENT NUMBER: 97:217951

TITLE: Cellulose dyeing

INVENTOR(S): Hasler, Rolf; Palacin, Francis

PATENT ASSIGNER(S): Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3203548	A1	19820902	DE 1982-3203548	19820203 <--
DE 3203548	C2	19870924		
CH 665325	A3	19880513	CH 1982-590	19820201 <--
CH 665325	B5	19881115		
GB 2093076	A	19820825	GB 1982-3637	19820209 <--
GB 2093076	B	19840510		
FR 2509336	A1	19830114	FR 1982-2393	19820210 <--
FR 2509336	B1	19841109		
JP 57154477	A	19820924	JP 1982-21021	19820212 <--
US 4548902	A	19851022	US 1983-499991	19830601 <--
			US 1981-235301	A1 19810213
			DE 1981-3105405	A 19810214
			US 1982-347137	A1 19820209

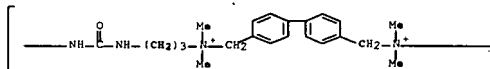
PRIORITY APPLN. INFO.: MARPAT 97:217951

GI

OTHER SOURCE(S):

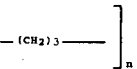
GI

PAGE 1-A



●2 Cl-

PAGE 1-B



L14 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:457122 HCAPLUS Full-text

DOCUMENT NUMBER: 97:57122

TITLE: Biphenyl compounds and their use as intermediates in

optical brighteners, dyes, plastics and pharmaceutical

preparations

INVENTOR(S): Harnisch, Horst

PATENT ASSIGNER(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPAXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

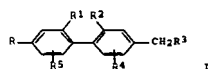
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 47877	A2	19820324	EP 1981-106467	19810820 <--
EP 47877	A3	19820602		
EP 47877	B1	19850123		
R: CH, DE, FR, GB, IT				
DE 3048088	A1	19820715	DE 1980-3048088	19801219 <--
US 4370486	A	19830125	US 1981-292868	19810814 <--
JP 57077630	A	19820515	JP 1981-135645	19810831 <--
JP 02054334	B	19901121		

PRIORITY APPLN. INFO.: DE 1980-3033002 A 19800902

OTHER SOURCE(S): DE 1980-3048088 A 19801219

GI



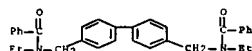
AB Title compds. (I; R = H, CH₂R₃, SO₃H, C1-6 alkyl, CF₃, cyclohexyl, C1-4 alkoxy, Cl, Br, F; R₁ = H, Me; R₂ = H, RR₁ = CH₂CH₂, SO₂; R₃ = halogen α-substituted acetamido, propionamido, optionally substituted benzamido, phthalimido; R₄ = H, Me, SO₃H; R₅ = H, Me, Cl, SO₃H; with the proviso R₃ = halogen substituted acetamido or propionamido or optionally substituted benzamido when no SO₃H groups or SO₂ bridges are present) are prepared. Thus, biphenyl (92-52-4) in propionic acid containing H₂SO₄ was reacted with chloroacetamide (79-07-2) and paraformaldehyde (30525-89-4) to give I (R = ClCH₂CONHCH₂; R₁ = R₂ = R₄ = R₅ = H; R₃ = ClCH₂CONH) [82487-54-5]. Approx. 30 other I were prepared.

IT 82:87-13-6P 82487-16-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

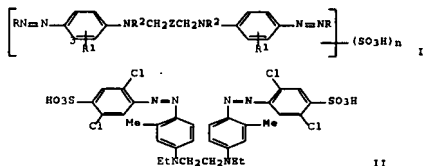
RN 82487-13-6 HCAPLUS
CN Benzamide, N,N'-[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[N-methyl- (9CI) (CA INDEX NAME)



RN 82487-16-9 HCAPLUS
CN Benzamide, N,N'-[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[N-ethyl- (9CI) (CA INDEX NAME)



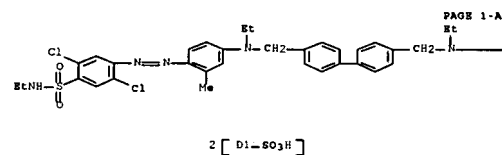
L14 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1982:439615 HCAPLUS Full-text
DOCUMENT NUMBER: 97:19615
TITLE: Viscosity of aqueous solutions of poly[bis(arylene)dimethylammonium chloride] ionenes
AUTHOR(S): Burmistr, M. V.; Svetkin, Yu. V.
CORPORATE SOURCE: USSR
SOURCE: Voprosy Khimii i Khimicheskoi Tekhnologii (1981), 63, 75-8
CODEN: VKKCAJ; ISSN: 0321-4095
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Reduced viscosities as function of the concentration of aqueous solns. of the title ionenes had maximum at <0.01 g/dL which shifted toward higher concns. (approx. 0.01-0.02 g/dL) upon incorporation of biphenyl units between quaternary N atoms of the main chains



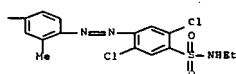
AB Fast yellow to red dyes (I) for polyamide fibers, wool, and cotton are prepared, where R = aromatic or heterocyclic diazo component radical, R₁ = H, C1-4 alkyl, or acylamino, R₂ = H or optionally substituted C1-6 alkyl (R₂ may also represent alkylene bound to an ortho position of the benzene ring, or the two R₂ groups may form an alkylene bridge), Z = direct bond, CH=CH, CH₂CH₂, C₆H₄, or C₆H₄C₆H₄, and n = 2-6. Thus, successive reaction of m-toluidine [108-64-1] with BrCH₂CH₂Br and Et₂SO₄ in the presence of MgO gave m-MeC₆H₄NECH₂CH₂NEtCSMe-m [80336-50-1], which was coupled with diazotized 2,5-dichloro-3-methylphenol [88-50-6] and salted to form the Na salt [80599-99-1] of II, a light- and wetfast red dye for polyamide showing good exhaustion and buildup at pH 6. Numerous other I and intermediates were similarly prepared.

IT 80611-66-1P
RL: PREP (Preparation)
(manufacture of, as dye for polyamide fibers)

RN 80611-66-1 HCAPLUS
CN [1,1'-Biphenyl]-ar,ar'-disulfonic acid, 4,4'-bis[[4-[[2,5-dichloro-4-[(ethylamino)sulfonyl]phenyl]azo]-3-methylphenyl]ethylamino)methyl]- (9CI) (CA INDEX NAME)



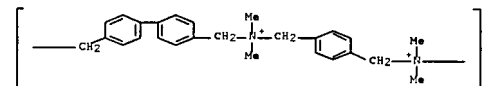
PAGE 1-B



due to increased hydrophobicity of the polymers. The presence of O or S bridge groups in the biphenyl units did not affect the maximum because of the enhanced flexibility of the chains. The rising segments of the viscosity-concentration curves were well described by the Fuoss and Libretti-Stivala equations, the coeffs. of which correlated with electron d. calculated for the N atoms of the ionenes.

IT 63943-50-0
RL: PRP (Properties)
(viscosity of)

RN 63943-50-0 HCAPLUS
CN Poly[[dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



●2 Cl-

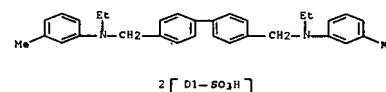
L14 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1982:182735 HCAPLUS Full-text
DOCUMENT NUMBER: 96:182735
TITLE: Azo compounds
INVENTOR(S): Schwander, Hansrudolf; Hurter, Rudolf
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Eur. Pat. Appl., 55 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 38296	A1	19811021	EP 1981-810119	19810325 <--
EP 38296	B1	19840509		
R: CH, DE, FR, GB, IT				
JP 56151766	A	19811124	JP 1981-46589	19810331 <--
JP 59023735	B	19840604		
US 4562249	A	19851231	US 1985-707548	19850305 <--
PRIORITY APPL. INFO.:			CH 1980-2538	A 19800331
			US 1981-247422	A1 19810325
			US 1984-582160	A1 19840227

OTHER SOURCE(S): MARPAT 96:182735
GI

IT 80634-46-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling of, with diazotized aniline derivative)

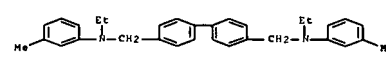
RN 80634-46-4 HCAPLUS
CN [1,1'-Biphenyl]-ar,ar'-disulfonic acid, 4,4'-bis[[ethyl(3-methylphenyl)amino)methyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

IT 80600-05-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfonation of)

RN 80600-05-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N'-diethyl-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1981:609361 HCAPLUS Full-text
DOCUMENT NUMBER: 95:209361
TITLE: Cosmetic agents from polycationic polymers and their use in cosmetic compositions
PATENT ASSIGNEE(S): Orel S. A., Fr.
SOURCE: Belg., 67 pp.
CODEN: BEXXAL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 886781	A1	19810619	BE 1980-203257	19801219 <--
FR 2471777	A1	19810626	FR 1979-31431	19791221 <--
FR 2471777	B1	19821029		
US 4411884	A	19831025	US 1980-217411	19801217 <--
DK 8005420	A	19810622	DK 1980-5420	19801219 <--
DK 169117	B1	19940822		
GB 2066663	A	19810715	GB 1980-40865	19801219 <--
GB 2066663	B	19840711		
NL 8006922	A	19810716	NL 1980-6922	19801219 <--
DE 3048121	A1	19811105	DE 1980-3048121	19801219 <--

DE 3048121	C2	19870806			
DE 3048121	C3	19930114			
CA 1161365	A1	19840131	CA 1980-367247	19801219	--
CH 647673	A5	19850215	CH 1980-9439	19801219	--
AT 8006231	A	19860615	AT 1980-6231	19801219	--
AT 404672	B	19990125			
BR 8008459	A	19810714	BR 1980-8459	19801222	--
JP 56092807	A	19810727	JP 1980-180572	19801222	--
JP 62028122	B	19870618			
US 4517174	A	19850514	US 1983-534366	19830921	--
US 4702906	A	19871027	US 1985-733590	19850513	--
			FR 1979-31431	A	19791221
			US 1980-217411	A1	19801217
			US 1983-534366	A1	19830921

PRIORITY APPLN. INFO.:

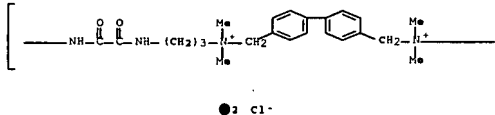
AB Cationic polymers containing the moiety $-N(R1R2A1XAN-R3R4A3)-$, (R1,R2,R3, R4 = alkyl, heterocycle group; A1 and A2 = alkylene or arylene group; X = divalent group; A3 = divalent group) were prepared and used in cosmetics. Thus, a cationic polymer (I) [79716-17-9] was prepared by refluxing 51.9 g 1,6-bis(2-dimethylaminoethoxycarbonylamino)hexane with 50:55 g α,ω -dichloropolyethylene glycol. I (3% weight) was incorporated into an oxidizing dye for hair with other conventional ingredients. These polymers were also added to shampoos, hair creams, rinses, etc.

IT 69420-52-6P 69420-66-2P 79078-16-3P
79078-18-5P 79702-07-1P
RL: BIOL (Biological study); PREP (Preparation)
(preparation of, for cosmetics)

RN 69420-52-6 HCAPLUS

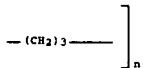
CN Poly[imino(1,2-dioxo-1,2-ethanediyl)imino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl-

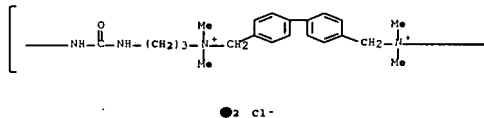
PAGE 1-B



RN 69420-66-2 HCAPLUS

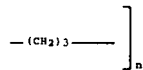
CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A



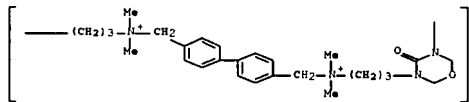
●2 Cl-

PAGE 1-B



RN 79078-16-3 HCAPLUS

CN Poly[(4-oxo-2H-1,3,5-oxadiazine-3,5(4H,6H)-diyl)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

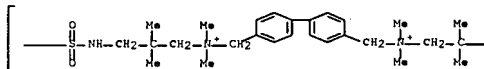


●2 Cl-

RN 79078-18-5 HCAPLUS

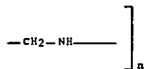
CN Poly[sulfonylimino(2,2-dimethyl-1,3-propanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl-

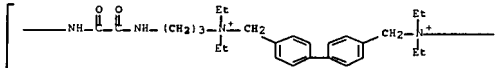
PAGE 1-B



RN 79702-07-1 HCAPLUS

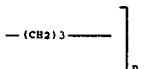
CN Poly[imino(1,2-dioxo-1,2-ethanediyl)imino-1,3-propanediyl(diethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(diethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl-

PAGE 1-B



L14 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:551441 HCAPLUS Full-Text

DOCUMENT NUMBER: 95:151441

TITLE: Ionene-type polymers

PATENT ASSIGNER(S): Oreal S. A., Fr.

SOURCE: Belg., 25 pp.

CODEN: BEXXAL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

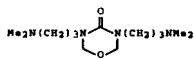
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 886780	A1	19810619	BE 1980-203256	19801219 --

FR 2471996	A1	19810626	FR 1979-31430	19791221 --
FR 2471996	B1	19850524		
US 4395541	A	19830726	US 1980-217402	19801217 --
DK 8005423	A	19810622	DK 1980-5423	19801219 --
BR 8008412	A	19810714	BR 1980-8412	19801219 --
GB 2066830	A	19810715	GB 1980-40868	19801219 --
NL 8006920	A	19810716	NL 1980-6920	19801219 --
JP 56098233	A	19810807	JP 1980-179104	19801219 --
JP 03000414	B	19910108		
DE 3048076	A1	19810903	DE 1980-3048076	19801219 --
DE 3048076	C2	19901213		
CA 1164595	A1	19840327	CA 1980-367250	19801219 --
CH 649771	A5	19850614	CH 1980-9436	19801219 --
AT 8006204	A	19860915	AT 1980-6204	19801219 --
AT 382879	B	19870427		

PRIORITY APPLN. INFO.:

OI

FR 1979-31430 A 19791221



I

AB The oxadiazinone (I) [79068-70-5] is prepared from HCHO [50-00-0] and $[Me_2N(CH_2)_3NH]_2CO$ [52338-87-1]. $[Me_2NCH_2CHMe_2CH_2NH]_2SO_2$ (II) [79068-69-2] is prepared from $Me_2NCH_2CHMe_2CH_2NH_2$ [53369-71-4] and SO_2Cl_2 . Quaternary ammonium polymers are prepared by polymerizing I, II, $[Et_2N(CH_2)_3NH]_2CO$ (III), $(Me_2NCH_2)_2CHOH$, and/or $Me_2N(CH_2)_3NH_2$ with organic dihalides. Thus, I 40.88, Cl $(CH_2)_6Cl$ 23.25, and water 50 g were refluxed for 3 h to prepare a copolymer [79086-00-3].

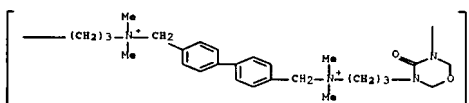
IT 79078-16-3P 79078-18-5P

RL: PREP (Preparation)

(preparation of)

RN 79078-16-3 HCAPLUS

CN Poly[(4-oxo-2H-1,3,5-oxadiazine-3,5(4H,6H)-diyl)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

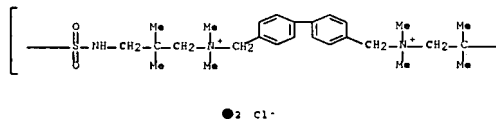


●2 Cl-

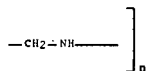
RN 79078-18-5 HCAPLUS

CN Poly[sulfonylimino(2,2-dimethyl-1,3-propanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

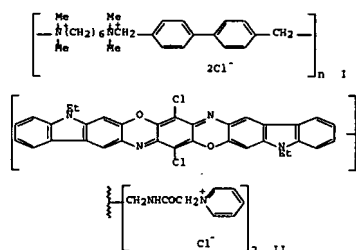
PAGE 1-B



L14 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1981:32089 HCAPLUS Full-text
 DOCUMENT NUMBER: 94:32089
 TITLE: Dyeing cellulosic fibers
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

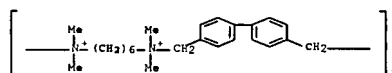
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55103380	A	19800807	JP 1980-11959	19800202 <-
EP 15233	A1	19800903	EP 1980-810026	19800128 <-
EP 15233	B1	19840307		
R: CH, DE, FR, GB				
US 4292037	A	19810929	US 1980-116379	19800129 <-
PRIORITY APPLN. INFO.:			CH 1979-1043	A 19790202
			CH 1979-5268	A 19790606

OI

● 2 Cl⁻

AB Cellulosic fibers were dyed from aqueous bath of cationic dyes of planar structure containing 29 conjugated double bonds in the presence of cationic leveling agents. For example, a cotton cloth (10 parts) was immersed in 200 parts water containing 0.02 part I [63943-38-4] (mol. weight 12,000) at 40° for 15 min. II [76035-20-6] (0.002 part) was added to the bath which was then kept at 40° for 15 min and heated to 80° over 40 min to give dye pickup 99%. The blue dyeing obtained had wetfastness comparable to that dyed with a reactive or vat dye.

IT 63943-38-4
 RL: USES (Uses)
 (leveling agents, for dyeing of cotton with cationic dyes)
 RN 63943-38-4 HCAPLUS
 CN Poly[(dimethyliminio)-1,6-hexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

=>
 => d ibib abs hitatr 31-50

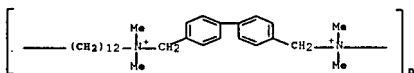
L14 ANSWER 31 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:524819 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:124819
 TITLE: Dyeing textile materials in the presence of polymeric quaternary ammonium salts as resist material for producing multitone effects
 INVENTOR(S): Galafassi, Pierre; Haase, Jaroslav; Horn, Ulrich
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Ger. Offen., 52 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2854724	A1	19790628	DE 1978-2854724	19781219 <-
PRIORITY APPLN. INFO.:			CH 1977-15961	A 19771223

AB Cationic dyeable fibers or their mixts. were dyed in multiple shade effects in the presence of a polymeric reserving agent which contains -RR'N.ZN.R2R3CH2Z'CH2- units where R,R',R2,R3 = aryl, alkyl, optionally substituted C5-20 alkyl, alkenyl, or cycloalkyl; RR'N, R2R3N = optionally substituted 5- or 6- membered heterocycle; Z = (CH2)n, n = 1-20, CO, optionally substituted CH=CH, H2CC6H4CH2, H2C10H6CH2, cycloalkylene, or a N heterocycle with linkage through N; Z' = biphenylene, tetrahydronaphthylene). Thus, 1 mol 4,4'-bis(chloromethyl)biphenyl and 1 mol N,N,N',N'-tetramethyl-1,12-diaminododecane were condensed to give a polymer [63943-34-0]. The polymer was used in a bath to treat acrylic yarn and the yarn was squeezed, steamed at 100°, washed, and dried. The treated yarn was knit with untreated yarn and the resulting knit was dyed with a cationic dye and a disperse dye to give a bluish green-yellowish green 2 tone effect.

IT 63943-34-0
 RL: USES (Uses)
 (resist, for dyeing acrylic and acid-modified polyester fibers)
 RN 63943-34-0 HCAPLUS
 CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

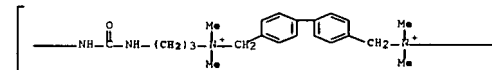
L14 ANSWER 32 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:492925 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:92925
 TITLE: Dyeing textile materials in the presence of polymeric quaternary ammonium salts as resist material while producing tone in tone or multitone effects
 INVENTOR(S): Galafassi, Pierre; Haase, Jaroslav; Horn, Ulrich
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Ger. Offen., 50 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2853652	A1	19790628	DE 1978-2853652	19781213 <-
PRIORITY APPLN. INFO.:			CH 1977-15510	A 19771216

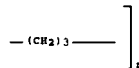
AB Cationic dyeable fibers or their mixts. were dyed multishade effects in the presence of a cationic reserving polymer which contains -RR'N.ZZ1Z2N.R2RZ2- units where R, R1, R2, R3 = substituted C5-20 alkyl, alkenyl, or cycloalkyl, aryl, alkyl (RR1N or R2R3N may form a 5- or 6-membered heterocycle); Z, Z2 = CnH2n (n = 1-12), optionally substituted phenylene; and Z1 = NHCONH or derivative, CONH, O2CNH, CO2 or derivative, alkylene, alkylene derivative, H2CC6H4CH2, 4-H2CC6H4OC6H4CH2-4, CH2COCH2, CH2CH(OH)CH2. Thus, 0.2 mol 4,4'-bis(chloromethyl)biphenyl and 0.2 mol 1,3-bis(3-dimethylaminopropyl)urea were condensed to give a polymer [69420-66-2] which was used to treat an acrylic yarn at 0.2% in an aqueous bath at 70-100° for 30 min. The heated yarn was knitted with an untreated yarn and the resultant knit was dyed with a mixture of cationic dyes to give a tone-in-tone dyeing with a contrasting light-dark effect with the untreated yarn showing deeper dyeing.

IT 69420-66-2
 RL: USES (Uses)
 (reserving agents, for dyeing cationic dyeable synthetic fibers, for multitone effect)
 RN 69420-66-2 HCAPLUS
 CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

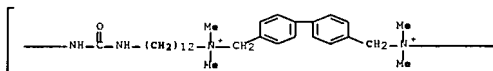
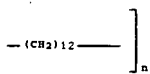
PAGE 1-A

● 2 Cl⁻

PAGE 1-B



IT 71164-46-0
 RL: USES (Uses)
 (reserving agents, for dyeing polyamide fibers and multitone effects)
 RN 71164-46-0 HCAPLUS
 CN Poly[iminocarbonylimino-1,12-dodecanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

L14 ANSWER 33 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:430532 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:30532
 TITLE: Electrophotographic paper polymeric subbing layer
 INVENTOR(S): Wegmueller, Hans; Horn, Ulrich; Haase, Jaroslav;
 Hofer, Arnold
 Ciba-Geigy A.-G., Switz.
 PATENT ASSIGNER(S): Ger. Offen., 62 pp.
 SOURCE: CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

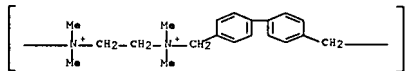
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2831265	A1	19790208	DE 1978-2831265	19780715 <<<
PRIORITY APPL. INFO.: GI			CH 1977-8912	A 19770719

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

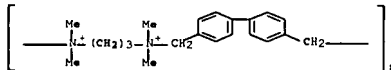
AB An electrophotographic paper which is moisture and crease resistant and forms images free of edge effects and dirty background is obtained by using a subbing layer of a polymeric quaternary ammonium salt of mol. weight 400 or 500 to 50,000 whose cationic unit has the formula (N-R1R2Z1N-R3R4CH2Z2CH2), in which R1-R4 = C5-20 alkyl, cycloalkyl, or alkylene, aryl, or aralkyl; R1 and R2 and/or R3 and R4 can form a 3-6 membered heterocycle with the N atom; Z1 is a bivalent (CH2)_n group which may contain units of bivalent S, CO, or CH; CH and be substituted with Z1 OH, halogen, nitrile, alkyl, hydroxyalkyl, CO2H, or carbalkoxy or Z1 aryl or aralkyl, or Z1 is polyoxyalkylene, naphthylene, tetrahydronaphthylene, 1,2-cyclohexylene, 1,2-cyclopentylene, 3,4-(1,1-dioxotetrahydrothiophenylene), cyclohexane-1,4-bisemethylene, I (R6 = H, alkyl, C1-4 hydroxy- or haloalkyl, OH, halogen, CO2H, carbalkoxy, or Ph; and p = 1-3), II (R7 the same as R6; and Z3 = bivalent O, CO, S, SO2, or alkylene), III (n = 1-6), or is part of a heterocycle involving 1 or both N atoms and

Z1 of R1-R4; and Z2 is IV or V. Thus, white typewriter paper (70 g/m²) was coated (4 g/m², dry weight) with a 20% aqueous solution of a polymer VI (n = 53), baked at 90°, rolled, overcoated to 30 g/m² with a composition comprised of vinyl acetate-crotonic acid polymer I and ZnO 7 parts, and processed in an SCM-copier to give high-quality, clear images even with storage for 16 h at 25° in air with 30% relative humidity prior to imaging.

IT 63943-35-1 63943-36-2
 RL: USES (Uses)
 (electrophotog. paper subbing layer containing, for visible images with clear backgrounds)
 RN 63943-35-1 HCAPLUS
 CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

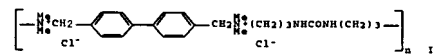
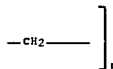
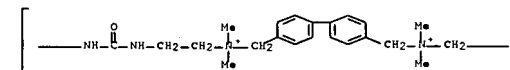
RN 63943-36-2 HCAPLUS
 CN Poly[(dimethyliminio)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

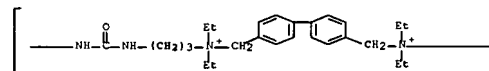
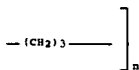
L14 ANSWER 34 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:421417 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:21417
 TITLE: Quaternary ammonium polymer salts
 INVENTOR(S): Haase, Jaroslav; Horn, Ulrich; Berendt, Hans Ulrich
 PATENT ASSIGNER(S): Ciba-Geigy A.-G., Swed.
 SOURCE: Braz. Pedido PI, 59 pp.
 CODEN: BFXDX
 DOCUMENT TYPE: Patent
 LANGUAGE: Portuguese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 7803709	A	19790220	BR 1978-3709	19780609 <<<
CH 638362	A3	19830930	CH 1977-7178	19770610 <<<

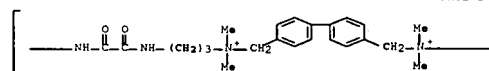
CH 638362	B5	19840330		
US 4247476	A	19810127	US 1978-911725	19780601 <<<
DD 137350	A5	19790829	DD 1978-205841	19780607 <<<
SU 890980	A3	19811215	SU 1978-2629400	19780607 <<<
NL 7806242	A	19781212	NL 1978-6242	19780608 <<<
GB 2000164	A	19790104	GB 1978-26563	19780608 <<<
GB 2000164	B	19820217		
BE 868001	A1	19781211	BE 1978-188476	19780609 <<<
DK 7802583	A	19781211	DK 1978-2583	19780609 <<<
SE 7806722	A	19781211	SE 1978-6722	19780609 <<<
FR 2399451	A1	19790302	FR 1978-17373	19780609 <<<
FR 2399451	B1	19821210		
ES 471150	A1	19790901	ES 1978-471150	19780609 <<<
AU 7836977	AU	19791213	AU 1978-36977	19780609 <<<
CA 1093063	A1	19801125	CA 1978-305172	19780609 <<<
PL 113058	B1	19801129	PL 1978-207517	19780609 <<<
JP 54004999	A	19790116	JP 1978-70290	19780610 <<<
PRIORITY APPL. INFO.: GI			CH 1977-7178	A 19770610

●2 Cl⁻

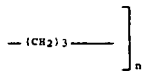
RN 69420-50-4 HCAPLUS
 CN Poly[iminocarbonylimino-1,3-propanediyl(diethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(diethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 69420-52-6 HCAPLUS
 CN Poly[imino(1,2-dioxo-1,2-ethanediyl)imino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(diethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

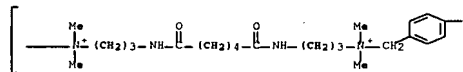
PAGE 1-B



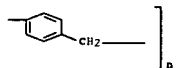
RN 69420-57-1 HCAPLUS

CN Poly[(dimethyliminio)-1,3-propanediylimino(1,6-dioxo-1,6-hexanediyl)imino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

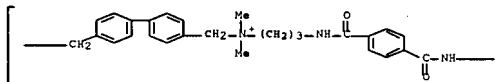
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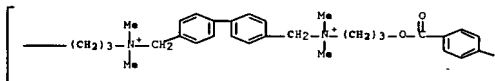
RN 69420-61-7 HCAPLUS

CN Poly[(dimethyliminio)-1,3-propanediyliminocarbonyl-1,4-phenylenecarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

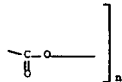
PAGE 1-A

●2 Cl⁻

PAGE 1-A

●2 Cl⁻

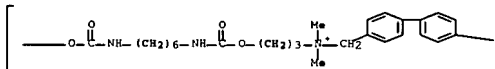
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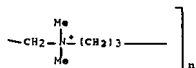
RN 69420-64-0 HCAPLUS

CN Poly[oxy carbonylimino-1,6-hexanediyliminocarbonyloxy-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

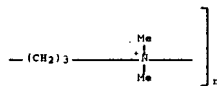
PAGE 1-B



RN 69420-65-1 HCAPLUS

CN Poly[(dimethyliminio)(2-oxo-1,2-ethanediyl)imino-1,3-propanediylimino(1,4-oxo-1,2-ethanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

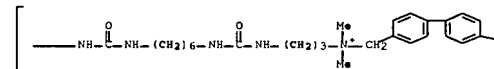
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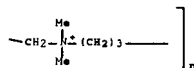
RN 69420-62-8 HCAPLUS

CN Poly[iminocarbonylimino-1,6-hexanediyliminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

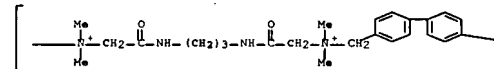
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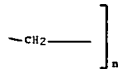
RN 69420-63-9 HCAPLUS

CN Poly[oxy carbonyl-1,4-phenylenecarbonyloxy-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

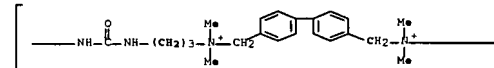
PAGE 1-B



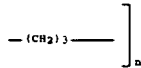
RN 69420-66-2 HCAPLUS

CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

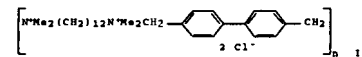
PAGE 1-B



10/531,232 61 of 118 Robert Havlin
INVENTOR(S): Horn, Ulrich; Berendt, Hans Ulrich; Liechti, Peter;
Wegmueller, Hans
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Patentschrift (Switz.), 27 pp.
CODEN: SWXXAS
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 606191	A5	19781031	CH 1976-15191	19751223
PRIORITY APPL. INFO.:			CH 1976-15191	A 19751223

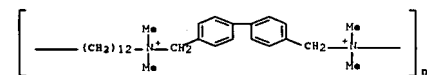
OI



AB Polymeric quaternary ammonium salts are synthesized from diamines and dihalogens and those tested showed good antibacterial activity against Staphylococcus aureus, Escherichia coli, and Pseudomonas aeruginosa in vitro. E.g., the polymer I (63946-13-4), synthesized by refluxing 4,4'-bis(chloromethyl)biphenyl and N,N,N',N'-tetramethyl-1,12-diaminododecane in MeOH for 24 h completely inhibited E. coli growth at 10 ppm in 4 h and S. aureus and P. aeruginosa growth at 30 ppm in 1 h.

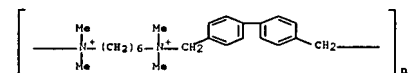
IT 63943-34-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

RN 63943-34-0 HCAPLUS
CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)

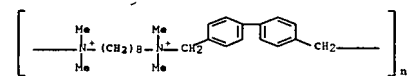


IT 63943-35-1P 63943-36-2P 63943-37-3P
63943-38-4P 63943-39-5P 63943-40-8P
63943-41-9P 63943-43-1P 63943-45-3P
63943-49-7P 63943-50-0P 63943-51-1P
63943-52-2P 63943-53-3P 63943-55-5P
63946-25-8P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

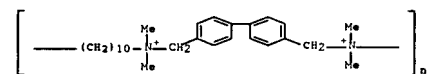
10/531,232 63 of 118 Robert Havlin



RN 63943-39-5 HCAPLUS
CN Poly[(dimethyliminio)-1,8-octanedyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

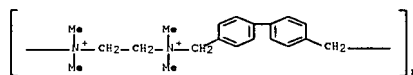


RN 63943-40-8 HCAPLUS
CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,10-decanediyl dichloride] (9CI) (CA INDEX NAME)

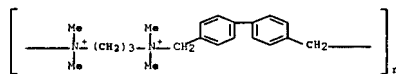


RN 63943-41-9 HCAPLUS
CN Poly[(dimethyliminio)-1,4-phenylenemethylene-1,4-phenylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

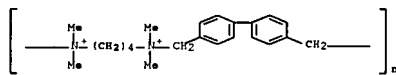
10/531,232 62 of 118 Robert Havlin
RN 63943-35-1 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



RN 63943-36-2 HCAPLUS
CN Poly[(dimethyliminio)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

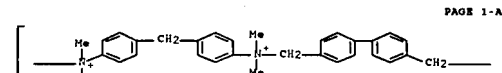


RN 63943-37-3 HCAPLUS
CN Poly[(dimethyliminio)-1,4-butanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



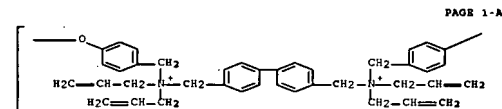
RN 63943-38-4 HCAPLUS
CN Poly[(dimethyliminio)-1,6-hexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

10/531,232 64 of 118 Robert Havlin



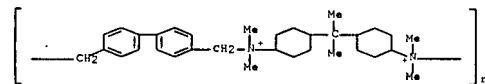
PAGE 1-B

RN 63943-43-1 HCAPLUS
CN Poly[oxyl-1,4-phenylenemethylene(di-2-propenyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(di-2-propenyliminio)methylene-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)



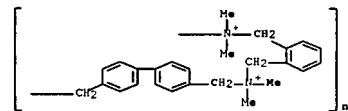
RN 63943-45-3 HCAPLUS

CN Poly[(dimethyliminio)-1,4-cyclohexanediyl(1-methylethylidene)-1,4-cyclohexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

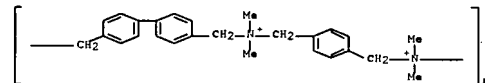
RN 63943-49-7 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

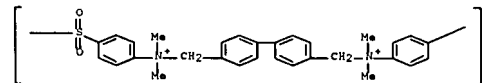
RN 63943-50-0 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 63943-51-1 HCAPLUS

CN Poly[(dimethyliminio)methylene(5,6,7,8-tetrahydro-2,3-naphthalenediyl)methylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

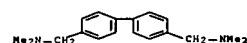
RN 63946-35-8 HCAPLUS

CN Poly[(1,1'-Biphenyl)-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl] (9CI) (CA INDEX NAME)

CM 1

CRN 63405-50-5

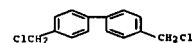
CMF C18 H24 N2



CM 2

CRN 1667-10-3

CMF C14 H12 Cl2



L14 ANSWER 36 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:122972 HCAPLUS [Full-Text](#)

DOCUMENT NUMBER: 90:122972

TITLE: Polymeric quaternary ammonium salts

INVENTOR(S): Haase, Jaroslav; Horn, Ulrich; Berendt, Hans Ulrich

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Ger. Offen., 62 pp.

CODEN: GWXXBX

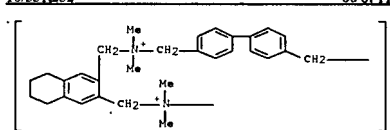
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

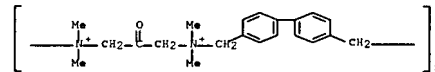
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CH 638362	A3	19830930	CH 1977-7178	19770610 <-

●2 Cl⁻

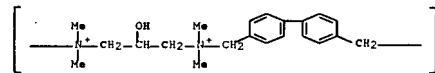
RN 63943-52-2 HCAPLUS

CN Poly[(dimethyliminio)(2-oxo-1,3-propanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 63943-53-3 HCAPLUS

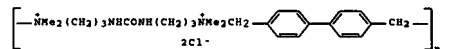
CN Poly[(dimethyliminio)(3-hydroxy-1,3-propanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene diiodide] (9CI) (CA INDEX NAME)

●2 I⁻

RN 63943-55-5 HCAPLUS

CN Poly[sulfonyl-1,4-phenylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)

CH 638362	B5	19840330		
US 4247476	A	19810127	US 1978-911725	19780601 <-
DD 137350	A5	19790829	DD 1978-205841	19780607 <-
SU 890980	A3	19811215	SU 1978-2629400	19780607 <-
NL 7806242	A	19781212	NL 1978-6242	19780608 <-
GB 2000164	A	19790104	GB 1978-26563	19780608 <-
GB 2000164	B	19820217		
BE 868001	A1	19781211	BE 1978-188476	19780609 <-
DE 7802583	A	19781211	DK 1978-2583	19780609 <-
SE 7806722	A	19781211	SE 1978-6722	19780609 <-
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ES 471150	A1	19790901	ES 1978-471150	19780609 <-
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CA 1090363	A1	19801125	CA 1978-305172	19780609 <-
PL 113058	B1	19801129	PL 1978-207517	19780609 <-
JP 54004999	A	19790116	JP 1978-70290	19780610 <-
PRIORITY APPLN. INFO.:			CH 1977-7178	A 19770610
GI				

2Cl⁻

AB Quaternary ammonium polymers are prepared from organic dihalide, especially aromatic dihalides, and amino deriva. of ureas, optionally mixed with other dyes and are useful as leveling agent and retarders for the dyeing of textiles. Thus, 0.2 mol 4,4'-bis(chloromethyl)biphenyl and 0.2 mol 1,3-bis(3-dimethylaminopropyl)urea were refluxed in 200 mL MeOH, giving a 100 g yield of ammonium polymer I [69420-66-2], having inherent viscosity 2.20 dL/g (25°, 0.5% weight/volume in MeOH). A polyacrylonitrile fabric (5 g) was immersed in 200 mL of dyeing liquid containing 0.01 g I, adjusted to pH 4 with AcOH, heated 20 min at 28°, mixed with a solution containing 0.015 g of a mixture of 3 cationic azo dyes, dyed 60 min at 98°, cooled to 60°, and washed, giving a level dyeing with excellent wetfastness.

IT 69420-49-1P 69420-50-4P 69420-52-6P

69420-57-1P 69420-61-7P 69420-62-8P

69420-63-9P 69420-64-0P 69420-65-1P

69420-66-2P

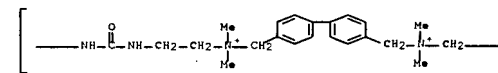
RL: PREP (Preparation)

(manufacture of, for dyebath additives and coagulating agents)

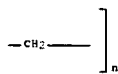
RN 69420-49-1 HCAPLUS

CN Poly[iminocarbonylimino-1,2-ethanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,2-ethanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Cl⁻

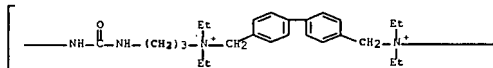
PAGE 1-B



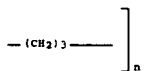
RN 69420-50-4 HCAPLUS

CN Poly[iminocarbonylimino-1,3-propanediyl(diethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(diethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

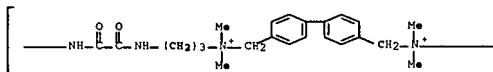
PAGE 1-B



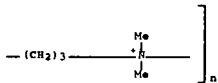
RN 69420-52-6 HCAPLUS

CN Poly[imino(1,2-dioxo-1,2-ethanediyl)imino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

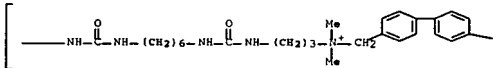
PAGE 1-B



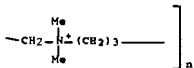
RN 69420-62-8 HCAPLUS

CN Poly[iminocarbonylimino-1,6-hexanediyliminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

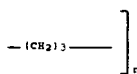
PAGE 1-B



RN 69420-63-9 HCAPLUS

CN Poly[oxycarbonyl-1,4-phenylenecarbonyloxy-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

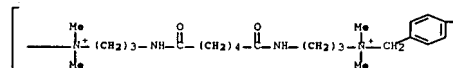
PAGE 1-B



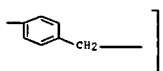
RN 69420-57-1 HCAPLUS

CN Poly[(dimethyliminio)-1,3-propanediylimino(1,6-dioxo-1,6-hexanediyl)imino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

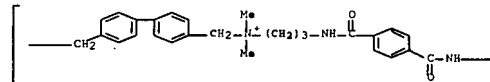
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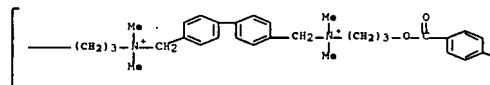
RN 69420-61-7 HCAPLUS

CN Poly[(dimethyliminio)-1,3-propanediyliminocarbonyl-1,4-phenylenecarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

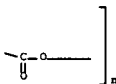
PAGE 1-A

● 2 Cl⁻

PAGE 1-A

● 2 Cl⁻

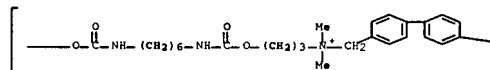
PAGE 1-B



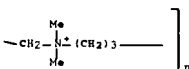
RN 69420-64-0 HCAPLUS

CN Poly[oxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

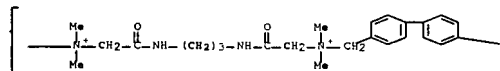
PAGE 1-B



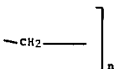
RN 69420-65-1 HCAPLUS

CN Poly[(dimethyliminio)(2-oxo-1,2-ethanediyl)imino-1,3-propanediylimino(1-oxo-1,2-ethanediyl)(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

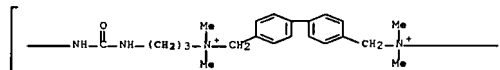
●2 Cl⁻

PAGE 1-B

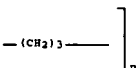


RN 69420-66-2 HCAPLUS
CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,3-propanediyl dichloride] (9CI) (CA INDEX NAME)

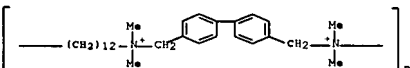
PAGE 1-A

●2 Cl⁻

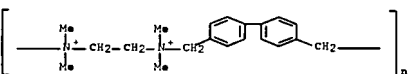
PAGE 1-B



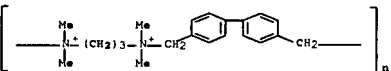
L14 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:109796 HCAPLUS Full-text
DOCUMENT NUMBER: 90:109796
TITLE: Cosmetic agent

●2 Cl⁻

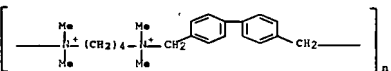
RN 63943-35-1 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 63943-36-2 HCAPLUS
CN Poly[(dimethyliminio)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

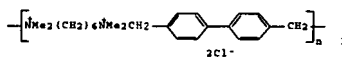
RN 63943-37-3 HCAPLUS
CN Poly[(dimethyliminio)-1,4-butanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

INVENTOR(S): Wegmueller, Hans; Morn, Ulrich; Hungerbuehler, Walter;
Hesse, Jaroslav
PATENT ASSIGNER(S): Ciba-Geigy A.-G., Switz.
SOURCE: Ger. Offen., 68 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2819005	A1	19781116	DE 1978-2819005	19780429 <--
BE 846515	A1	19781030	BE 1978-187223	19780428 <--
SE 7804932	A	19781103	SE 1978-4932	19780428 <--
JP 53136533	A	19781129	JP 1978-50186	19780428 <--
BR 7802654	A	19781219	BR 1978-2654	19780428 <--
ES 469308	A1	19791001	ES 1978-469308	19780428 <--
ZA 7802496	A	19790425	ZA 1978-2496	19780501 <--
AU 7835597	A	19791108	AU 1978-35597	19780501 <--
NL 7804699	A	19781106	NL 1978-4699	19780502 <--
FR 2389374	A1	19781201	FR 1978-12942	19780502 <--
PRIORITY APPLN. INFO.:			CH 1977-5463	A 19770502
			CH 1977-15957	A 19771223

GI



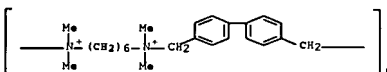
AB Cosmetic agents containing a polymeric quaternary ammonium salt with cationic units - N-RR1A1N-R2R3CH2A2CH2- are prepared and used in hair shampoos, setting preps., and conditioners. E.g. I [63943-38-4], prepared by reacting 4,4'-bis(chloromethyl)biphenyl with N,N,N',N'-tetramethyl-1,6-diaminohexane, is combined with 2-lauryl-1-(carboxymethyl Na)-1-(2-carboxymethoxyethyl Na)-2-hydroxyimidazoline and lauric acid diethanolamide at pH 6-8 as a shampoo.

IT 63943-34-0P 63943-35-1P 63943-36-2P
63943-37-3P 63943-38-4P 63943-39-5P
63943-40-8P 63943-41-9P 63943-43-1P
63943-45-3P 63943-49-7P 63943-50-0P
63943-51-1P 63943-52-2P 63943-53-3P
63943-55-5P 63946-25-8P 69229-67-0P
69383-13-7P 69383-14-8P 69383-15-9P
69383-16-0P 69413-81-6P

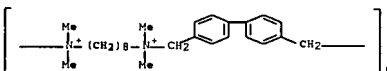
RL: PREP (Preparation)
(preparation of, for cosmetics and hair preps.)

RN 63943-38-0 HCAPLUS
CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)

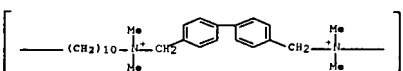
RN 63943-38-4 HCAPLUS
CN Poly[(dimethyliminio)-1,6-hexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 63943-39-5 HCAPLUS
CN Poly[(dimethyliminio)-1,8-octanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

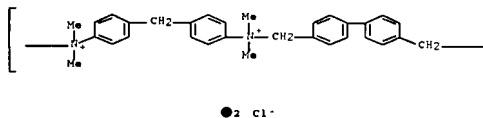
●2 Cl⁻

RN 63943-40-8 HCAPLUS
CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,10-decanediyl dichloride] (9CI) (CA INDEX NAME)

●2 Cl⁻

RN 63943-41-9 HCAPLUS
CN Poly[(dimethyliminio)-1,4-phenylenemethylene-1,4-phenylene(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-A

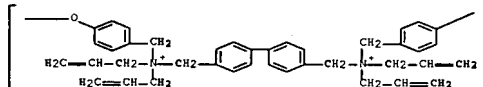
● 2 Cl⁻

PAGE 1-B



RN 63943-43-1 HCAPLUS

CN Poly[oxy-1,4-phenylenemethylene(di-2-propenyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene(di-2-propenyliminio)methylene-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)

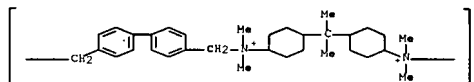
● 2 Cl⁻

PAGE 1-B



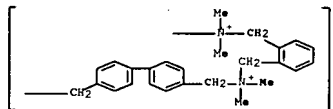
RN 63943-45-3 HCAPLUS

CN Poly[(dimethyliminio)-1,4-cyclohexanediyl(1-methylethylidene)-1,4-cyclohexanediyl(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

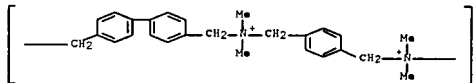
RN 63943-49-7 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,2-phenylenemethylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 63943-50-0 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 63943-51-1 HCAPLUS

CN Poly[(dimethyliminio)methylene(5,6,7,8-tetrahydro-2,3-naphthalenediyl)methylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

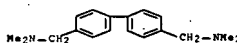
RN 63946-25-8 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

CRN 63405-50-5

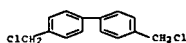
CMF C18 H24 N2



CM 2

CRN 1667-10-3

CMF C14 H12 Cl2



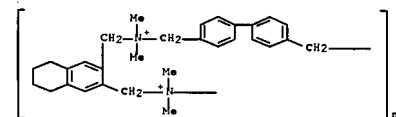
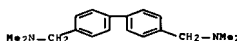
RN 69229-67-0 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl and 1,1'-sulfonylbis[4-chlorobenzene] (9CI) (CA INDEX NAME)

CM 1

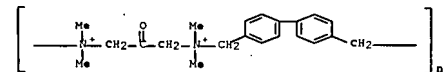
CRN 63405-50-5

CMF C18 H24 N2

● 2 Cl⁻

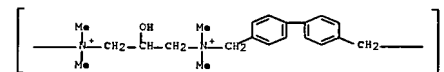
RN 63943-52-2 HCAPLUS

CN Poly[(dimethyliminio)(2-oxo-1,3-propanediyl)(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 63943-53-3 HCAPLUS

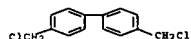
CN Poly[(dimethyliminio)(2-hydroxy-1,3-propanediyl)(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene diiodide] (9CI) (CA INDEX NAME)

● 2 I⁻

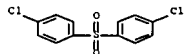
RN 63943-55-5 HCAPLUS

CN Poly[sulfonyl-1,4-phenylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene(dimethyliminio)-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)

CM 2
CRN 1667-10-3
CMF C14 H12 Cl2

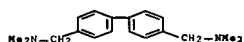


CM 3
CRN 80-07-9
CMF C12 H8 Cl2 O2 S

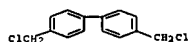


RN 69383-13-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 1,2-bis(chloromethyl)benzene and 4,4'-bis(chloromethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1
CRN 63405-50-5
CMF C18 H24 N2



CM 2
CRN 1667-10-3
CMF C14 H12 Cl2

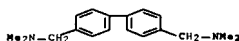


CM 3
CRN 612-12-4
CMF C8 H8 Cl2

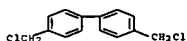


RN 69383-14-8 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 1,4-bis(chloromethyl)benzene and 4,4'-bis(chloromethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

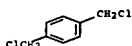
CM 1
CRN 63405-50-5
CMF C18 H24 N2



CM 2
CRN 1667-10-3
CMF C14 H12 Cl2



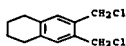
CM 3
CRN 623-25-6
CMF C8 H8 Cl2



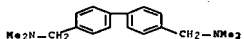
RN 69383-15-9 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl and 6,7-bis(chloromethyl)-1,2,3,4-

tetrahydronaphthalene (9CI) (CA INDEX NAME)

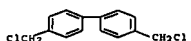
CM 1
CRN 63946-19-0
CMF C12 H14 Cl2



CM 2
CRN 63405-50-5
CMF C18 H24 N2

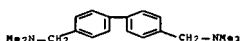


CM 3
CRN 1667-10-3
CMF C14 H12 Cl2

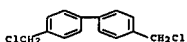


RN 69383-16-0 HCAPLUS
CN 2-Propanone, 1,3-dichloro-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl and N,N,N',N'-tetramethyl[1,1'-biphenyl]-4,4'-dimethanamine (9CI) (CA INDEX NAME)

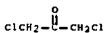
CM 1
CRN 63405-50-5
CMF C18 H24 N2



CM 2
CRN 1667-10-3
CMF C14 H12 Cl2

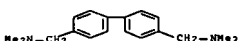


CM 3
CRN 534-07-6
CMF C3 H4 Cl2 O



RN 69413-81-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl and bis(chloromethyl)naphthalene (9CI) (CA INDEX NAME)

CM 1
CRN 63405-50-5
CMF C18 H24 N2

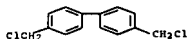


CM 2
CRN 27156-22-5
CMF C12 H10 Cl2
CCI IDS



2 [D1-CH2-Cl]

CM 3

CRN 1667-10-3
CMF C14 H12 C12

L14 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:24196 HCAPLUS Full-text
DOCUMENT NUMBER: 88:24196
TITLE: Fibers from complexes of ionene polymers with polyanions
INVENTOR(S): Abe, Koji; Tsuchida, Hidetoshi
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKJXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52081125	A	19770707	JP 1975-158541	19751226 <-
JP 53014647	B	19780519		

PRIORITY APPL. INFO.: JP 1975-158541 A 19751226
AB Fibrillated fibers were prepared by treating a polycation, e.g., poly(N,N-dimethyl-p-xylyleneammonium chloride) (I), with a polycarboxylic acid with the d.p. 2100 at ionic strength (μ) 0.01-0.5, pH 27, and 5-15° in H₂O. Thus, a mixture (pH 9) of 1.8 g polymethacrylic acid (mol. weight approx. 2 × 10⁵) in 50 mL 0.1N NaCl and a mixture of 1.5 g I in 50 mL 0.1N NaCl were mixed for 30 min and the mixture was stored 2 days at 15° in N₂ to give fibers with length 5-20 mm and diameter 100-500 nm.

64945-59-1P

RL: PREP (Preparation)
(fiber, fibrillated, manufacture of)

64945-59-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, homopolymer, compd. with 4,4'-bis(chloromethyl)-1,1'-biphenyl polymer with N,N,N',N'-tetramethyl[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

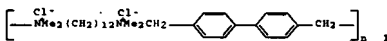
CRN 63946-25-8
CMF (C18 H24 N2 . C14 H12 C12)x
CCI PMS

CM 2

CRN 63405-50-5
CMF C18 H24 N2

BE 849728	A1	19770622	BE 1976-173528	19761222 <-
DK 7605804	A	19770624	DK 1976-5804	19761222 <-
SE 7614450	A	19770624	SE 1976-14450	19761222 <-
FR 2336434	A1	19770722	FR 1976-38758	19761222 <-
FR 2336434	B1	19801031		
ZA 7607612	A	19771130	ZA 1976-7612	19761222 <-
AU 7620820	A	19780629	AU 1976-20820	19761222 <-
AU 511139	B2	19800731		
JP 52104600	A	19770902	JP 1976-155595	19761223 <-
PL 108409	B1	19800430	PL 1976-194673	19761223 <-
SU 890981	A3	19811215	SU 1976-2430502	19761223 <-
			CH 1975-16697	A 19751223

PRIORITY APPL. INFO.:
OI



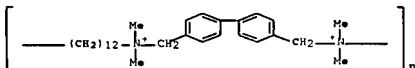
AB The title polymers, which contained ammonium groups in the main chain, are prepared from various diamines and bis(chloromethyl)biphenols or tetrahydronaphthalenes for use as bactericides, dyeing assistants, and antistatic agents. Thus, 109 g 4,4'-bis(chloromethyl)biphenyl and 111 g N,N,N',N'-tetramethyl-1,12-diaminododecane were refluxed 24 h in MeOH, freed of solvents, and dried at 40°, giving 220 g of a copolymer [63946-13-4] with repeating unit structure I and average mol. weight 7900. I was used as a retarder in dye baths for acrylic fibers, giving a slow shade equilization over the fabrics without the usual cooling required.

IT 63943-34-0P 63943-35-1P 63943-36-2P
63943-37-3P 63943-38-4P 63943-39-5P
63943-40-6P 63943-41-7P 63943-43-1P
63943-45-3P 63943-49-7P 63943-50-0P
63943-51-1P 63943-52-2P 63943-53-3P
63943-55-5P 63946-14-5P 63946-18-9P
63946-20-3P 63946-21-4P 63946-22-5P
63946-25-6P 64078-41-7P

RL: PREP (Preparation)
(manufacture of, for antistatic agents, bactericides, and dyeing assistants)

63943-34-0 HCAPLUS

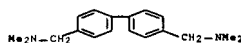
CN Poly[(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene(dimethyliminio)-1,12-dodecanediyl dichloride] (9CI) (CA INDEX NAME)



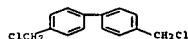
●2 Cl-

RN 63943-35-1 HCAPLUS

CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



CM 3

CRN 1667-10-3
CMF C14 H12 C12

CM 4

CRN 25087-26-7
CMF (C4 H6 O2)x
CCI PMS

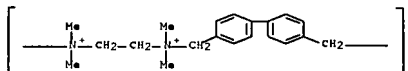
CM 5

CRN 79-41-4
CMF C4 H6 O2

L14 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:519188 HCAPLUS Full-text
DOCUMENT NUMBER: 87:119188
TITLE: Polymeric quaternary ammonium salts
INVENTOR(S): Horn, Ulrich; Berendt, Hans Ulrich; Liechti, Peter; Wegmueller, Hans
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Ger. Offen., 80 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

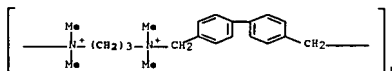
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2657582	A1	19770707	DE 1976-2657582	19761218 <-
CH 7516697	D	19770630	CH 1975-16697	19751223 <-
CH 599389	B5	19780531		
NL 7613931	A	19770627	NL 1976-13931	19761215 <-
GB 1546809	A	19790419	GB 1976-53309	19761221 <-
CA 1069522	A1	19800108	CA 1976-268361	19761221 <-



●2 Cl-

RN 63943-36-2 HCAPLUS

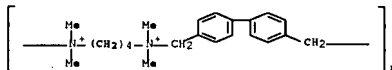
CN Poly[(dimethyliminio)-1,3-propanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



●2 Cl-

RN 63943-37-3 HCAPLUS

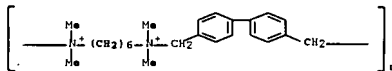
CN Poly[(dimethyliminio)-1,4-butanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



●2 Cl-

RN 63943-38-4 HCAPLUS

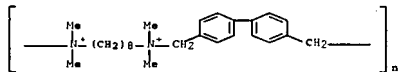
CN Poly[(dimethyliminio)-1,6-hexanediyl(dimethyliminio)methylene[1,1'-biphenyl]-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)



●2 Cl-

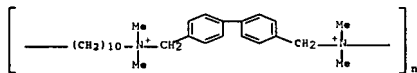
RN 63943-39-5 HCAPLUS

CN Poly[(dimethyliminio)-1,8-octanediyldimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

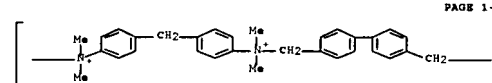
RN 63943-40-8 HCAPLUS

CN Poly[(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene(dimethyliminio)-1,10-decanediyl dichloride] (9CI) (CA INDEX NAME)

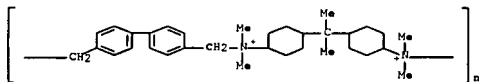
● 2 Cl⁻

RN 63943-41-9 HCAPLUS

CN Poly[(dimethyliminio)-1,4-phenylenemethylene-1,4-phenylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

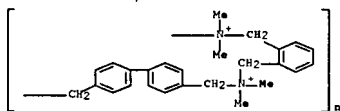
● 2 Cl⁻

PAGE 1-A

● 2 Cl⁻

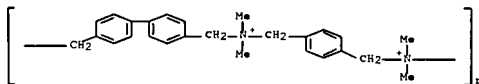
RN 63943-49-7 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,2-phenylenemethylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 63943-50-0 HCAPLUS

CN Poly[(dimethyliminio)methylene-1,4-phenylenemethylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 63943-51-1 HCAPLUS

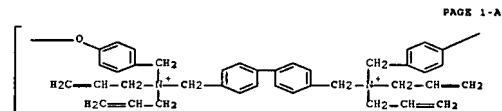
CN Poly[(dimethyliminio)methylene(5,6,7,8-tetrahydro-2,3-naphthalenediyl)methylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

PAGE 1-B



RN 63943-43-1 HCAPLUS

CN Poly[oxy-1,4-phenylenemethylene(di-2-propenyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene(di-2-propenyliminio)methylene-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

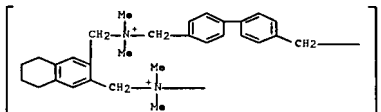
PAGE 1-A

PAGE 1-B



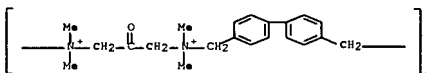
RN 63943-45-3 HCAPLUS

CN Poly[(dimethyliminio)-1,4-cyclohexanediyl(1-methylethylidene)-1,4-cyclohexanediyl(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

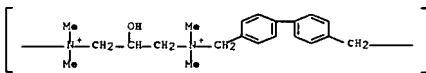
RN 63943-52-2 HCAPLUS

CN Poly[(dimethyliminio)(2-oxo-1,3-propanediyl)(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene dichloride] (9CI) (CA INDEX NAME)

● 2 Cl⁻

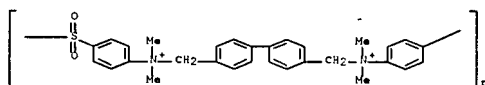
RN 63943-53-3 HCAPLUS

CN Poly[(dimethyliminio)(2-hydroxy-1,3-propanediyl)(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene diiodide] (9CI) (CA INDEX NAME)

● 2 I⁻

RN 63943-55-5 HCAPLUS

CN Poly[sulfonyl-1,4-phenylene(dimethyliminio)methylene(1,1'-biphenyl)-4,4'-diylmethylene(dimethyliminio)-1,4-phenylene dichloride] (9CI) (CA INDEX NAME)

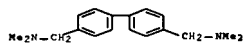


● 2 Cl⁺

RN 63946-14-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 1,1'-sulfonylbis[4-chlorobenzene] (9CI) (CA INDEX NAME)

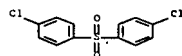
CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

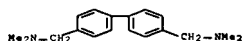
CRN 80-07-9
CMF C12 H8 Cl2 O2 S



RN 63946-18-9 HCAPLUS
CN 2-Propanone, 1,3-dichloro-, polymer with N,N,N',N'-tetramethyl[1,1'-biphenyl]-4,4'-dimethanamine (9CI) (CA INDEX NAME)

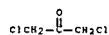
CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

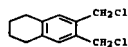
CRN 534-07-6
CMF C3 H4 Cl2 O



RN 63946-20-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 6,7-bis(chloromethyl)-1,2,3,4-tetrahydronaphthalene (9CI) (CA INDEX NAME)

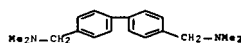
CM 1

CRN 63946-19-0
CMF C12 H14 Cl2



CM 2

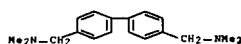
CRN 63405-50-5
CMF C18 H24 N2



RN 63946-21-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 1,4-bis(chloromethyl)benzene (9CI) (CA INDEX NAME)

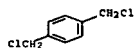
CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

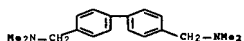
CRN 623-25-6
CMF C8 H8 Cl2



RN 63946-22-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 1,2-bis(chloromethyl)benzene (9CI) (CA INDEX NAME)

CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

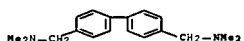
CRN 612-12-4
CMF C8 H8 Cl2



RN 63946-25-8 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with 4,4'-bis(chloromethyl)-1,1'-biphenyl (9CI) (CA INDEX NAME)

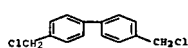
CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

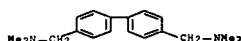
CRN 1667-10-3
CMF C14 H12 Cl2



RN 64078-41-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl-, polymer with bis(chloromethyl)naphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 63405-50-5
CMF C18 H24 N2



CM 2

CRN 27156-21-5
CMF C12 H10 Cl2
CCI IDS



2 [D1-CH2-Cl]

L14 ANSWER 40 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1977:454088 HCAPLUS Full-text
DOCUMENT NUMBER: 87:54088
TITLE: Flame-retardant chlorinated aliphatic polymer
INVENTOR(S): Rendell, Donald Richard; Hyde, Thomas Gerald; Clublely, Brian George; Davis, Boyce Ian David; Lamb, Frank
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Ger. Offen., 113 pp.
CODEN: GWXXSX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

CN(C)CC1=CC=C(C=C1)-C2=CC=C(C=C2)CCN(C)C

10/531.232

Robert Haylin

●2 c1-

PAGE 1-C

$$\begin{array}{c}
 \text{---O---CH}_2\text{---CH}_2 \\
 \text{---(CH}_2\text{)}_{11}\text{---N}^+\text{---CH}_2 \\
 \text{---O---CH}_2\text{---CH}_2
 \end{array}
 \begin{array}{c}
 \text{CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---} \\
 | \\
 \text{CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---}
 \end{array}$$

$$\begin{array}{c} \text{---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---OH} \\ \text{---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---OH} \end{array}$$

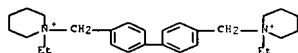
Robert Haylin

10/531.232

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[Et+](C1=CC=CC=C1)CC1=CC=CC=C1C2=CC=CC=C2CC1=CC=CC=C2[N+](C3=CC=CC=C3)EtC1CCCCC1[N+]([O-])=O.C1=CC=C(C=C1)-C2=CC=CC=C2.C1=CC=C(C=C1)C[N+]([O-])=O

RN 40224-79-1 HCAPLUS
CN Piperidinium, 1,1'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[1-ethyl-,
dibromide (9CI) (CA INDEX NAME)



• 2 Br •

L14 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1969:416013 HCAPLUS Full-text
 DOCUMENT NUMBER: 71:16013
 TITLE: Thin-layer chromatography of tropeines
 AUTHOR(S): Szendey, Georg L.
 CORPORATE SOURCE: Endopharm Frankfurt. Arzneimittelfabrik G.m.b.H., Frankfurt/M., Fed. Rep. Ger.
 SOURCE: Fresenius' Zeitschrift fuer Analytische Chemie (1969), 244(4), 257
 CODEN: ZACFAU; ISSN: 0016-1152
 DOCUMENT TYPE: Journal
 LANGUAGE: German

AB The following Rf values were obtained for the indicated compds. separated on silica gel, which had been activated for 1 hr. at 130°, by a 10:2:3 EtOAc-HCO2H-H2O solution in a solvent-saturated chamber. The separation was carried out in 50-65 min. during which time the solvent front moved 12-14 cm.: 4,4'-biphenylenebis(N-methyl-3-β-hydroxytropinium bromide), 16; cholinium chloride, 18; 4,4'-biphenylenebis(N-methyl-3-α-hydroxy tropinium bromide), 21; tropine (I), 24; acetylcholinium chloride, 24; scopalaminium bromide, 39; atropine, 42; hyoscyamine, 42; hyoscyaminium bromide, 42; physostigmine, 42; N-(p-ethylbenzyl)-3-α-tropinium bromide, 46; 4,4'-biphenylenebis(N-methyl-3-α-tropinium bromide), 46; theobromine (II), 46; 4,4'-biphenylenebis(N-methyl-3-α-(phenylacetoxyl)tropinium bromide), 49; 4-biphenylyl-N-methyl-3-α-tropinium bromide, 50; 4,4'-biphenylenebis(N-methyl-3-β-(tigloyloxy)tropinium bromide), 50; 4,4'-biphenylenebis(N-methyl-3-α-(benzoyloxy)tropinium bromide), 55; caffeine (III), 58; papaverine, 61; theophylline (IV), 65; N-(p-ethylbenzyl)atropinium bromide, 66; 4-biphenylyl-N-methylatropinium bromide, 74; and ethylpapaverine, 80. The spots were observed as dark zones on a yellow-green background under 254 mμ uv light for Rf values >0.5. The spots were not observed on the lower 1/3 of the plate due to the quenching action of HCO2H. Modified Dragendorff reagent [Szendey and Bayer (1957)] gave a violet spot with I, no color with II, III, and IV, and brick red spots on an orange-yellow background with the other tropeines. The detection limit is 0.5-1 γ.

IT 337-74-6 337-76-8 337-78-0 337-79-1
 379-84-0 379-85-1 511-56-8
 RL: ANT (Analytical); ANST (Analytical study)
 (chromatog. of thin-layer)

RN 337-74-6 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-, dibromide (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 337-76-8 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-(benzoyloxy)-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 337-78-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((phenylacetyl)oxy)-, dibromide,

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 379-84-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((2-methyl-1-oxo-2-butenyl)oxy)-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 511-56-8 HCAPLUS
 CN Pseudotropinium, 8,8'-(4,4'-biphenylenedimethylene)di-, dibromide, dibenzoate (8CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L14 ANSWER 46 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1968:496939 HCAPLUS Full-text
 DOCUMENT NUMBER: 69:96939
 TITLE: Curare-like active compounds
 AUTHOR(S): Szendey, Georg L.; Munnes, Siegfried
 SOURCE: Ger., 2 pp. CODEN: GWXXAW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
 DE 1271120 19680627 DE 1961-1271120 19610615 ---
 AB More effective curariform active compds. were prepared by treating 4,4'-bis(bromomethyl)biphenyl (I) with atropine or hyoscyamine. Thus, N,N'-(4,4'-biphenylenedimethylene)bis[N - ((+)- tropanyl)tropinium bromide], 10 g. atropine in 100 ml. acetone, and 5 g. I in 50 ml. acetone were left standing to give 90-5% paper chromatog. pure N,N'-(4,4'-biphenylenedimethylene)bis(atropinium bromide), decomposing 237-9° (EtOH or Me2CO). Similarly prepared was N,N'-(4,4'-biphenylenedimethylene)bis(hyoscyaminium bromide), decomposing 225-8°, [α]D20 -18.1° ± 2° (c 1.4, MeOH), using hyoscyamine.
 IT 20396-01-4P 21061-51-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 20396-01-4 HCAPLUS
 CN 10H,50H-Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3,α 1pha.-hydroxy-, dibromide, di-(-)-tropate (8CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 21061-51-8 HCAPLUS
 CN 10H,50H-Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3,α 1pha.-hydroxy-, dibromide, di-(-)-tropate (8CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L14 ANSWER 47 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1966:108082 HCAPLUS Full-text
 DOCUMENT NUMBER: 64:108082
 ORIGINAL REFERENCE NO.: 64:20415h,20416a-b
 TITLE: Curare-active symmetrical bisquaternary tropeines. IV
 AUTHOR(S): Szendey, G. L.
 CORPORATE SOURCE: Fa. Krugmann Co., Wedel-Hamburg, Germany
 SOURCE: Arzneimittel-Forschung (1966), 16(1), 77-80
 CODEN: ARZNFN; ISSN: 0004-4172
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB cf. CA 63, 1824e. A comparison of (α,ω-polymethylene)bistropineines, (phenylenedimethylene)bistropineines, and (4,4'-biphenylenedimethylene)bistropineines showed

stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 337-79-1 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-hydroxy-8-methyl-, dibromide, (exo,exo)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-84-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((2-methyl-1-oxo-2-butenyl)oxy)-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-85-1 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-hydroxy-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 511-56-8 HCAPLUS
 CN Pseudotropinium, 8,8'-(4,4'-biphenylenedimethylene)di-, dibromide, dibenzoate (8CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L14 ANSWER 45 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1969:97034 HCAPLUS Full-text
 DOCUMENT NUMBER: 70:97034
 TITLE: Curare-active bisquaternary compounds
 INVENTOR(S): Szendey, Georg L.; Munnes, Siegfried
 SOURCE: Ger., 3 pp. CODEN: GWXXAW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
 DE 1287588 19690823 DE 1962-8133882 19621201 ---
 AB Comps. of the general formula [p-RCH2C6H4C6H4CH2R]2·2X·(I), which are curare-effective, were prepared by treating 4,4'-bis(bromomethyl)-biphenyl (II) with a substituted tropine. Thus, 10 g. N-(3-β-tigloyloxy)tropine in 100 ml. Me2CO and 5 g. II in 50 ml. Me2CO were mixed and allowed to react for a longer time, the resulting crystals filtered off by suction, and washed with Me2CO to give 70-80% I (R = N-(3-β-tigloyloxy)tropanio, X = Br) (Ia), m. 253-6° (decomposition) (EtOH). Addnl. data for Ia and other I are tabulated.

IT 337-76-8P 337-78-0P 379-84-0P
 511-56-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

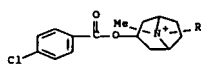
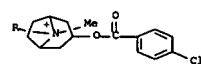
RN 337-76-8 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-(benzoyloxy)-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

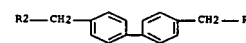
RN 337-78-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((phenylacetyl)oxy)-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

that variations within the interquaternary chain and the tropeine cation heads lead to various changes in curarelike activity. The replacement of the Me3N structure of decamethonium with tropine eliminated the potent muscle-paralyzing properties and at the same time changed the mechanism of action from a parasympathomimetic-like effect to a curarelike effect. The esterification of the OH group at position 3 of the tropine cation of the bisquaternary tropeines considerably enhanced their curarelike effect. The parasympatholytic- and ganglionic-blocking effects of (polymethylene)bistropineines were diminished by replacing the polymethylene chain with rigid structures. The bisquaternary cation heads seem to be responsible for attachment to the receptor; however, the type of receptor is probably influenced by the interquaternary chain. 23 refs.

IT 337-75-7, Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3-bromide], bis(p-chlorobenzoate) 337-76-8, Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3-bromide], dibenzoate 337-78-0, Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3-bromide], bis(phenylacetate) 379-84-0, Tiglic acid, diester with 8,8'-(4,4'-biphenylenedimethylene)bis(pseudotropinium bromide) 379-85-1, Tropinium, 8,8'-(4,4'-biphenylenedimethylene)bis[3-bromide] (curarelike activity of)
 RN 337-75-7 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-((4-chlorobenzoyl)oxy)-8-methyl-, dibromide (9CI) (CA INDEX NAME)



• 2 Br •



RN 337-76-8 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[3-(benzoyloxy)-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 337-78-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((phenylacetyl)oxy)-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

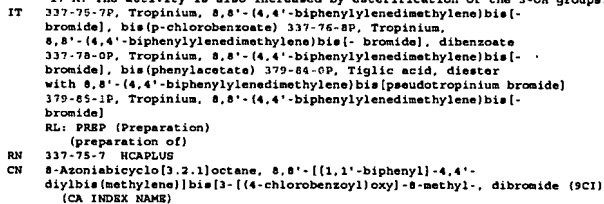
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-84-0 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)]bis[8-methyl-3-((2-methyl-1-oxo-2-butenyl)oxy)-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

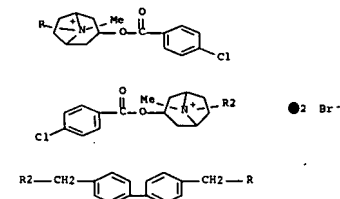
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-85-1 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-

Robert Haylin



RN 337-75-7 HCAPLUS
 CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[1,1'-biphenyl]-4,4'-
 diylbis(methylene)bis[3-[(4-chlorobenzoyl)oxy]-8-methyl-,
 (CA INDEX NAME)



RN 337-76-8 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[3-(benzoyloxy)-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 337-78-0 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[8-methyl-3-[(phenylacetyl)oxy]-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-84-0 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[8-methyl-3-[(2-methyl-1-oxo-2-butenyl)oxy]-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 379-85-1 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[3-hydroxy-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

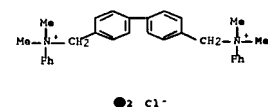
L14 ANSWER 52 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1963:63700 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 58:63700
ORIGINAL REFERENCE NO.: 58:10866f-h
TITLE: The ultraviolet absorption spectra of some quaternary tropines with biphenyl groups
AUTHOR(S): Szendey, G. L.
CORPORATE SOURCE: Fa. Sanol-Arzneimittel, Dr. Schwarz G.m.b.H., Monheim, Germany
SOURCE: Arch. Pharm. (1963), 296(No. 2), 121-6
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB The UV absorption spectra of compds. of formula I were measured in MeOH-H₂O 1:1: (R, m.p. (decomposition), λ_{min}. (mμ), and λ_{maximum} given): α-OH, 277-80°, 227, 261; β-OH, 247-50°, 227, 262; α-OCOC₂H₅, 234-6°, 228, 262; β-OCOC(Me)₂CH(Me), 253-256°, 238, 262; α-OCOPh, 281-2°, 219, 248 (min.), 236, 261 (maximum); β-OCOPh, above 310°, 219, 248 (min.), 235, 262 (maximum); α-OCOC₆H₄Cl, 256°, 221, 249. The UV absorption spectra of compds. of formula II were also measured: α-OH, 247-8°, 225-6, 257-8 (MeOH); α-OCOC₂H₅(Ph)CH₂OCOC₂H₅.

ACCESSION NUMBER: 1960:26028 HCAPLUS
DOCUMENT NUMBER: 54:26028
ORIGINAL REFERENCE NO.: 54:5116g-i
TITLE: Finishing of natural and synthetic protein fibers
INVENTOR(S): Rath, Hermann
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1018366		19571031	DE 1954-R18315	19540401 <--

AB Addition to Ger. 1,003,689 (C.A. 53, 22976f). As in the main patent, protein fibers are finished by treating them at elevated temps. with quaternary salts having the formula YXCH₂RCH₂XY, in which R is a bivalent aromatic or unsatd., low-mol. aliphatic radical, X are tertiary amine groups, and Y are halogen atoms. This treatment is improved by the presence of reducing agents. A suitable finishing bath is prepared by incorporation of 20 g./l. of NaHSO₃, 10 g./l. of the quaternary ammonium salt of dimethylaniline and 4,4'-bis(chloromethyl)biphenyl, and minor amts. of a wetting agent into the aqueous medium. The mixture is adjusted to pH 8 by addition of a Na₂B₄O₇-KH₂PO₄ buffer. Treating wool in this bath for 1 hr. at 80° results in a finish that renders the wool resistant to alkalies and felting.

IT 124139-70-4, Ammonium, (4,4'-biphenylenedimethylene)bis[dimethylphenyl-chloride] (in finishing protein fibers)
RN 124139-70-4 HCAPLUS
CN (4,4'-Biphenylenedimethylene)bis[dimethylphenylammonium chloride] (6CI) (CA INDEX NAME)



L14 ANSWER 54 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1953:127965 HCAPLUS
DOCUMENT NUMBER: 53:127965
ORIGINAL REFERENCE NO.: 53:22976f-h
TITLE: Finishing of proteinaceous fibers
INVENTOR(S): Rath, Hermann
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

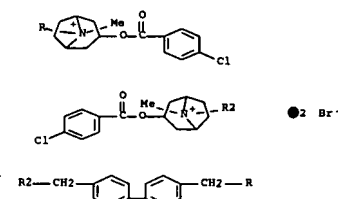
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1003689		19570307	DE 1953-R10848	19530331 <--

AB Natural or synthetic protein fibers are preferably treated with an aqueous solution of a quaternary salt of the general formula halogen-XCH₂RCH₂X-halogen, in which R is a bivalent aromatic or unsatd., low-mol. aliphatic residue, and X is a tertiary amine, at an elevated temperature. The fibers are impregnated with this solution, wrung out, and then heat-treated. In this way, pre-reduced wool can also be purified. Before the final treatment synthetic protein fibers, which are still in the plastic state, can also be

231-4°, 228, 258 (MeOH), 228, 258 (MeOH:H₂O 1:1). By the typical spectra of the biphenyl group, these compds. can be identified in tablets, capsules, and other medicines. For this reason MeOH:H₂O was chosen as solvent.
IT 379-84-0, Tiglic acid, diester with 8,8'-[(4,4'-biphenylenedimethylene)bis(pseudotropinium bromide)] (spectra of)
RN 379-84-0 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[8-methyl-3-[(2-methyl-1-oxo-2-butenyl)oxy]-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 337-75-7, Tropinium, 8,8'-[(4,4'-biphenylenedimethylene)bis(-bromide)], bis(p-chlorobenzoate) 337-76-8, Tropinium, 8,8'-[(4,4'-biphenylenedimethylene)bis(-bromide)], dibenzoate 337-78-0, Tropinium, 8,8'-[(4,4'-biphenylenedimethylene)bis(-bromide)], bis(phenylacetate) 379-85-1, Tropinium, 8,8'-[(4,4'-biphenylenedimethylene)bis(-bromide)] (spectrum of)
RN 337-75-7 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[3-[(4-chlorobenzoyl)oxy]-8-methyl-, dibromide (9CI) (CA INDEX NAME)



RN 337-76-8 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[3-(benzoyloxy)-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 337-78-0 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[8-methyl-3-[(phenylacetyl)oxy]-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

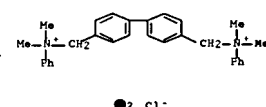
RN 379-85-1 HCAPLUS
CN 8-Azoniabicyclo[3.2.1]octane, 8,8'-[[1,1'-biphenyl]-4,4'-diylbis(methylene)bis[3-hydroxy-8-methyl-, dibromide, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L14 ANSWER 53 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

treated with quaternary salts. For example, wool pre-reduced with Ca thioglycolate was allowed to react with the quaternary salt of dimethylaniline and 4,4'-bis(chloromethyl)biphenyl. A solution of 10% quaternary salt based on the weight of the wool at pH 9 was applied in a 1:10 mixture for 30 min. at 70°. Upon washing, rinsing, and drying, an alkali-resistant, nonfelting wool was obtained.

IT 124139-70-4, Ammonium, (4,4'-biphenylenedimethylene)bis[dimethylphenyl-chloride] (in protein-fiber finishing)
RN 124139-70-4 HCAPLUS
CN (4,4'-Biphenylenedimethylene)bis[dimethylphenylammonium chloride] (6CI) (CA INDEX NAME)

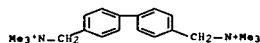


L14 ANSWER 55 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1956:33369 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 50:33369
ORIGINAL REFERENCE NO.: 50:6683c-f
TITLE: Comparative studies on the muscarinlike effects of acetylcholine, nitrocholine, furtrethonium, and other quaternary ammonium bases

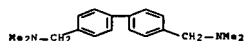
AUTHOR(S): Credner, Karl; Kawan, Hans; Kruger, Karla
CORPORATE SOURCE: Diweg Chem. Fabr. A.-G., Berlin-Waidmannslust
SOURCE: Arzneimittelforschung (1956), 6, 31-6
CODEN: ARZNAD; ISSN: 0004-4172
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The effect on circulation, intestine, and cardiac output of a number of quaternary bases have been determined on the blood pressure of cats and dogs, the intestines of guinea pigs and rabbits, and the frog heart and compared with that of acetylcholine (I). The following bases were studied: Nitrocholine nitrate (II); Me₃N(Br)R in which R stands for 2-furylmethyl (III) (Furtrethonium), benzyl, 4-, 3-, and 2-bromobenzyl, 4- and 3-methoxybenzyl, 4- and 3-nitrobenzyl, 4-hydroxybenzyl, (4-imidazolylmethyl)trimethylammonium perchlorate; (2-naphthylmethyl)trimethylammonium chloride; 2,6-bis(trimethylammonium methyl)naphthalene dibromide; 4,4'-bis(trimethylammonium methyl)biphenyl dibromide. II and III are more effective than I when given intramuscularly with regard to the duration of the effect. On the isolated bladder muscles, II and III equal I. In guinea pigs, II and III cause inhibition of diuresis dependent on the rate of blood pressure; I has no influence on diuresis. The other compds. had only weak or no activity.

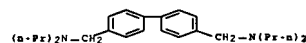
IT 170032-94-7, Ammonium, (4,4'-biphenylenedimethylene)bis(trimethylbromide)] (effect on circulation, heart and intestines vs. acetylcholine)
RN 170032-94-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-dimethanaminium, N,N,N',N',N',N'-hexamethyl-, dibromide (9CI) (CA INDEX NAME)

●2 Br⁻

L14 ANSWER 56 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1956:4734 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 50:4734
 ORIGINAL REFERENCE NO.: 50:989h-1,990a
 TITLE: Synthetic neuromuscular blocking agents. IV. Synthesis of some bisalkyl onium, piperidinium, and morpholinium dihalides
 AUTHOR(S): Khanna, N. M.; Dhar, M. L.
 CORPORATE SOURCE: Central Research Inst., Lucknow
 SOURCE: Journal of Scientific & Industrial Research (1955), 14B, 214-19
 CODEN: JSIRAC; ISSN: 0022-4456
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB of, C.A. 48, 13082b; 49, 1725d. For further pharmacological studies of the bis(onium) comds. the authors prepared several quaternary salts by treating appropriate dihalides with secondary amines in dry C6H6 or PhMe to give tertiary amines which when heated with alkyl or aryl amines 12-72 hrs. gave quaternary salts. Preliminary studies indicate that bis(piperidinium) comds. are more reactive than the corresponding bis(morpholinium) comds. Bis(dimethylaminomethyl)dibenzyl dipropylidide and dibutylidide, and bis(dimethylaminomethyl)dibutyl ether dimethiodide exhibit strong curarimetric activity.
 IT 63405-50-5P, 4,4'-Bi(benzylamine), N,N,N',N'-tetramethyl-
 683805-98-3P, 4,4'-Bi(benzylamine), N,N,N',N'-tetrapropyl-
 978745-36-9P, Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl-
 iodide)
 RL: PREP (Preparation)
 (preparation of)
 RN 63405-50-5 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)

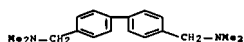


RN 683805-98-3 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetrapropyl- (9CI) (CA INDEX NAME)

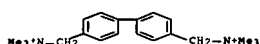


RN 878745-36-9 HCAPLUS

iodide)
 RL: PREP (Preparation)
 (preparation of)
 RN 63405-50-5 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-dimethanamine, N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)

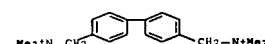


RN 878745-36-9 HCAPLUS
 CN Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl- iodide) (5CI) (CA INDEX NAME)

●2 I⁻

L14 ANSWER 58 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1956:47497 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 44:27297
 ORIGINAL REFERENCE NO.: 44:5307g-1,5308b-e
 TITLE: Some new curarizing agents
 AUTHOR(S): Walker, James
 CORPORATE SOURCE: Natl. Inst. Med. Research, London
 SOURCE: Journal of the Chemical Society (1950) 193-7
 CODEN: JCSOA9; ISSN: 0360-1769
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB (CH2)10Br2 (15 g.) and 7.6 g. CS(NH2)2 in 150 cc. EtOH, refluxed about 5 hrs., give a quant. yield of decamethylenebis(isothioureas)-2HBr (I), m. 140-1°; 20 g. I in 180 cc. N NaOH, shaken 3 hrs. with MeI, gives 8.3 g. 1,10-bis(methylmercapto)decane (II), b16 195-6°, nD20 1.4946; 7.1 g. II and 4 cc. MeI in 2 cc. MeOH, kept 2.5 days at room temperature, give 12.3 g. decamethylenebis(dimethylsulfonium iodide) (III), m. 119-20° (decomposition). (CH2)5Br2 (11.2 g.), treated as above, gives 4.8 g. 1, 5-bis(methylmercapto)pentane (IV), b22 128°, nD18 1.5103; 3.5 g. IV and 3 cc. MeI in 3 cc. MeOH, kept 48 hrs. at 37°, give pentamethylenebis(dimethylsulfonium iodide), m. 182-3° (decomposition). Br(CH2)10CO2Et and CS(NH2)2 in EtOH-EtNa, followed by MeI (overnight at room temperature), give the Et ester (V), b18 199-200°, nD23 1.4608. Of MeI(CH2)10CO2H, a waxy solid (benzamide salt, m. 191-2°). V and 90% NH4.H2O in EtOH, refluxed 5 hrs., give the hydrazide (VI), m. 88-9°. VI (10.5 g.) in 200 cc. EtOH, treated in a freezing mixture with 2.6 g. NaNO2 (concentrated aqueous solution) and then dropwise with 6 cc. concentrated HCl (40 min.), diluted with 800 cc. ice H2O, extracted with C6H6, the extract boiled 15 min., and the residue warmed with 25 cc. concentrated HCl, gives 10-(methylmercapto)decylamine-HCl (VII), m. 160-1°; 1.2 g. VII and 1.32 g. NaOH in 20 cc. MeOH, refluxed 7 hrs. with 3 cc. MeI, give 2.53 g. decamethylene-1-dimethylsulfonium-10-trimethylammonium diiodide (VIII), m. 136-7° (decomposition). (CH3CO2H)2 (23.6 g.), 35.2 cc. BrCH2CH2OH, 80 cc. C6H6, and 1 cc. concentrated H2SO4, refluxed 12 hrs., give 37 g. (CH3CO2CH2CH2Br)2 (IX), pale yellow, b3 169°, nD20 1.5023; 25 g. IX, 18 cc. C6H6, and 9 g. Me3N, heated 8 hrs. at 90°, give succinylcholine dibromide (X), m. 211°. Reduction of 23.5 g. (4-NCC6H4)2 in MeOH-NH3

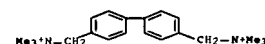
Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl- iodide) (5CI) (CA INDEX NAME)

●2 I⁻

L14 ANSWER 57 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1954:39113 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 48:39113
 ORIGINAL REFERENCE NO.: 48:6984b-h
 TITLE: Syntheses of ammonium compounds containing a diphenyl ether nucleus
 AUTHOR(S): Tomita, Masao; Takahashi, Kohzo
 CORPORATE SOURCE: Univ. Kyoto
 SOURCE: Yakugaku Zasshi (1953), 73, 760-3
 CODEN: YKKZAJ; ISSN: 0031-6903
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB (p-O2NCH4)2O (2 g.) in 80 ml. alc. and 4 g. sponge Sn on a boiling water bath treated with concentrated HCl dropwise, heated 1 hr., diluted with 4 vols. of water, the Sn precipitated with H2S, and the filtrate concentrated, filtered, and made alkaline with NH4OH gives 1.2 g. (p-H2NCH4)2O (I), m. 185-6°. Heating I in MeOH-KOH with MeI gives (p-Ime3NCH4)2O (II), leaves, m. 219°; picrate, C3OH3ON8O15, needles, m. 228°; an aqueous solution of II and AgCl gives (p-ClMe3NCH4)2O, hygroscopic needles. A mixture of (5 g. Ph2O), 3 g. (CH2O)n, 2.5 g. ZnCl2, and 15 g. glacial AcOH at 20° treated with dry HCl gas 15 min., kept 2 hrs., the product poured into ice water, extracted with Et2O, and the extract washed with 5% Na2CO3 and water, dried with Na2SO4, and distilled yielded 34.4% (p-ClCH2CH4)2O (III), leaves, m. 52-4°. III (3 g.) added portionwise to 10 ml. Me2NH at 0°, the mixture kept 3 hrs. at room temperature in a sealed tube, the excess Me2NH removed, the residue in 5% HCl extracted with Et2O, the HCl layer made alkaline with NaOH, extracted with Et2O, and the extract dehydrated with KOH and distilled gives (p-Me2NCH2CH4)2O (IV), b0.5 109-25°, HCl salt, m. 274°; picrate, C3OH3O15N8, needles, m. 177-8°. IV in MeOH and MeI heated 1 hr. on a water bath, the excess MeI removed, and the residue recrystd. from MeOH-Et2O gives (p-Ime3NCH2CH4)2O.H2O (V), needles, m. 242°. V and AgCl give (p-ClMe3NCH2CH4)2O, hygroscopic plates, which with Na picrate gives a picrate, C3H3O15N8, m. 171-2°. O-MeOC6H4OPh (3 g.) in 20 g. glacial AcOH treated with 1.5 g. (CH2O)n and 2 g. ZnCl2, CO2 passed through the mixture 100 min. at 40°, and treated the product as for III gives 5 g. p-[2,5-MeO(C1CH2)C6H3O]C6H4CH2Cl (VI), b0.05 120-68°, plates, m. 79-9.5°. VI with KMnO4 gives p-[2,5-MeO(C6H3O)C6H3O]C6H4CO2H, m. 294°. VI (5 g.) and 10 ml. Me2NH treated as for IV give p-[2,5-MeO(Me2NCH2)C6H3O]C6H4CH2NMe2 (VII), b0.05 168-75°; picrate, plates, m. 100°. The product from VII and MeI in MeOH recrystd. from AcOEt gives p-[2,5-MeO(Ime3NCH2)C6H3O]C6H4CH2NMe3I, needles, m. 215°. Chloromethylation of Ph2 and treatment of the product with Me2NH gives a small yield of (p-ClCH2CH4)2, leaves, m. 136-7°. Ph2 (5 g.), 7 g. 35% formalin, and 21 g. 45% HBr treated 20 hrs. at 50° with HBr gas, the product poured into ice water, and the oily layer treated with Et2O give 1.5 g. (p-BrCH2CH4)2 (VIII), plates, m. 169-70° (from Me2CO). VIII (2.1 g.) added portionwise to 9 g. Me2NH, the mixture kept 2 hrs. in a sealed tube, the excess Me2NH removed, the residue taken up in 5% HCl, and the solution made alkaline and extracted with Et2O gives 1.6 g. (p-Me2NCH2CH4)2 (IX), plates, m. 68-72° and 73-5° (from MeOH-H2O); picrate, m. 224-4.5° (decomposition) (from water). IX in MeOH and MeI heated on a water bath and the product recrystd. from hot water yielded 91% (p-Ime3NCH2CH4)2, m. above 350°.
 IT 63405-50-5P, 4,4'-Bi(benzylamine), N,N,N',N'-tetramethyl-
 878745-36-9P, Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl-
 iodide)

over Raney Ni at 60 atmospheric H pressure gives 21.3 g. (4-H2NCH2C6H4)2.2HCl, m. above 350°; 2.85 g. of the salt, 3.6 g. NaOH, and 7 cc. MeI in 60 cc. MeOH, refluxed 6 hrs., give 4.8 g. 4, 4'-bis(dimethylaminomethyl)biphenyl dimethiodide (XI), m. above 350°, acquires a blue tint in light. 1,4-C6H4(OCH2CH2CN)2 (22 g.), reduced in 500 cc. 10% EtOH-NH3 over 7 g. Raney Ni under 20 atmospheric H pressure, gives 21.1 g. 1, 4-bis(3-aminopropoxy)benzene-2HCl, m. 313-14°; refluxed with MeI and NaOH in MeOH, the salt gives 5.3 g. 1, 4-bis(3-dimethylaminopropoxy)benzene dimethiodide (XII), with 1.5 mols. H2O, m. 267°. With the curariform activity of (CH2)10(NMe3)I2 taken as 100, the mean relative mol. activities of the above comds. are: III 6.5, VIII 31.6, X 48.3, XI 7.8, and XII 27.
 IT 978745-36-9P, Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl-
 iodide)

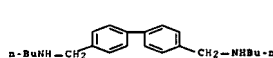
RL: PREP (Preparation)
 (preparation of)
 RN 878745-36-9 HCAPLUS
 CN Ammonium, (4,4'-biphenylenedimethylene)bis(trimethyl- iodide) (5CI) (CA INDEX NAME)

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L14 ANSWER 59 OF 59 HCAPLUS COPYRIGHT 2007 ACS ON STN
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 TITLE: Chemotherapy of amebiasis. III. Variants of bis(diamylamino)decane
 AUTHOR(S): Goodson, J. A.; Goodwin, L. J.; Gorvin, J. H.; Goss, M. D.; Kirby, K. S.; Lock, J. A.; Neal, R. A.; Sharp, T. M.; Solomon, W.
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 AB The amebicidal activity of a series of derive. of 1,10-bis(diamylamino)decane (I), including tertiary aromatic amines, secondary aromatic bases, and quaternary ammonium salts, has been found to be slight in vitro and in vivo. Data are tabulated. N,N,N',N'-Tetrabutylbenzidine (II), obtained in 78% yield by refluxing 1.84 g. anhydrous benzidine in BuOH with a 33% excess (7.3 g.) BuBr and 3.7 g. K2CO3 16 hrs., filtering, evaporating, extracting the residue with Et2O and aqueous NaOH, dissolving the crude product in petroleum (b. 40-60°), passing through activated alumina, and evaporating the solvent, m. 58.5° (from alc.); dipicrate m. 203-4° (decomposition); di-HCl salt m. 240-50° (decomposition). With MeI II formed a monomethiodide m. 146-7°. An alternative procedure yielding 64% II consisted of heating 4.1 g. PhNH2, 20 g. concentrated H2SO4, and 0.1 g. turpentine at 190-200° 4.5 hrs., making the mixture alkaline, steam-distilling, drying, extracting with C6H6, evaporating the extract, and decolorizing with alumina. N,N'-Dibutylbenzidine, m. 72°; di-HCl salt m. 280° (decomposition). N,N,N',N'-Tetraamylbenzidine, oil, b0.5 about 270°; dipicrate m. 186-7°; di-HCl salt m. 230-35° (decomposition). Bis(p-dibutylaminophenyl)methane, oil, b0 280-320°; dipicrate m. 183-4°; di-HCl salt m. about 220° (decomposition). Bis(p-diamylaminophenyl)methane, oil; di-HCl salt m. 203° (decomposition); dimethiodide m. about 140°. 1,2-Bis(p-dibutylaminophenyl)ethane m. 34.5-5.5°; dipicrate m. 173-4.5°; di-HCl salt m. about 231° (decomposition). trans-4,4'-Bis(dibutylamino)stilbene m. 70-1°; dipicrate m. about 213° (decomposition); di-HCl salt m. 240-2°. 1,2-Bis(p-diamylaminophenyl)ethane (III), prepared

by amination of (CH₃CH₂GHNH₂)₂·4I₂ with ANBr, m. 40° (from alc.); dipicrate m. 207-8°; di-HCl salt m. 214-15°; dimethiodide m. 158-60° (decomposition) (from alc. on addition of C₆H₆). 1,2-Bis(p-aminophenylamino)ethane obtained by passing the products of incomplete reaction of I₂ through a solution of EtOH containing 10% of concentrated HNO₃, adding with stirring petroleum, and crystallizing from alc. m. 86° di-HCl salt m. about 235° (decomposition). 1,2-Bis(p-(N-butylacetamidophenyl)ethane, obtained by heating 25 g. BuBr and 11.5 g. (p-H₂NCH₂CH₂)₂ in an autoclave at 200° 40 hrs., treating the mixture with Ac₂O, then with warm light petroleum, and recrystg. the solid product from benzene-light petroleum, m. 85-6°; decacylation yielded 1,2-bis(p-butylaminophenyl)ethane, m. 86-7° (from alc.); di-HCl salt m. about 235° (decomposition). 1,3-Bis(p-nitrophenoxy)propane (IV), from p-O₂NCH₂GHAONa and Br(CH₂)₃Br, m. 132°. 1,3-Bis(p-acetamidophenoxy)propane (87% by reduction of IV with powdered Fe and 99% Ac₂O), m. 103°, hydrolyzed with HCl to 1,3-bis(p-aminophenoxy)propane-2HCl, m. 268° (75% yield). Bis(p-dibutylaminophenyl) ether-2HCl (dipicrate m. 182°); bis(p-dimethylaminophenyl) ether dipicrate m. 148°; bis(p-diethylaminophenyl)methane-2HCl-2H₂O, m. 80° (anhydrous m. 130°) (dipicrate m. 168°); 1,2-bis(p-dibutylaminophenoxy)ethane-2HCl m. 205° (anhydrous m. 112°) (dipicrate m. 156°); bis(p-diaminophenyl)methane-2HCl-2H₂O m. 84° (anhydrous m. 160°) (dipicrate m. 140°); 1,2-bis(p-diaminophenyl)ethane-2HCl m. 181° (dipicrate m. 170°); 1,2-bis(p-dibutylaminophenoxy)propane-2HCl m. 169° (dihydrate m. 106°; dipicrate m. 202°); and 1,2-bis(p-diaminophenyl)propane-2HCl m. 94° (dipicrate m. 198°), were prepared by the general method of adding a solution of 2.5 g. Na in 80 cc. EtOH to 4 g. (p-H₂NCH₂GHA)₂O and 22 g. BuBr in 25 cc. boiling EtOH at a rate which maintained an alkaline reaction, removing the EtOH after 12 hrs., diluting the residue with water, extracting with Et₂O, removing the solvent, dissolving the base in light petroleum, passing it through an alumina column, and converting it through the picrate into the HCl salt. 4,4'-Bis(2-diethylaminoethyl)biphenyl, 2HCl, 2H₂O, was prepared by refluxing 20 g. Et₂O with 10 g. EtNH₂ overnight, adding 10 g. EtNH₂ to the solution, shaking with Et₂O, filtering the resulting oil (3.5 g.) dissolved in light petroleum, passed through an alumina column, and the solvent removed, m. 45.5° (from EtOH); di-HCl salt, m. 244-5°, 4,4'-Bis(dibutylaminomethyl)biphenyl-2HBr, from 3.4 g. (p-BrCH₂C₆H₄)₂ and 2.75 g. Bu₂NH in 50 cc. toluene refluxed 10 hrs., filtered, and the oily solid washed with hot toluene, and recrystd. from acetone, m. 227°. 4,4'-Bis(1-piperidymethyl)diphenylmethane, obtained by refluxing 7.1 g. (p-BrCH₂C₆H₄)₂CH₂ and 3.4 g. piperidine in 35 cc. EtOH 7 hrs., concentrating, shaking with 10% NaOH and benzene, dissolving the oil in light petroleum, filtering through alumina, and distilling, b.p. 5° 230°. m. 63-5° (from EtOH); dipicrate m. 181-2°; di-HCl salt, m. about 200° (decomposition); dimethiodide m. 175° (decomposition). 1,2-Bis(bromomethylamino)ethane, prepared by refluxing 10 g. EtNH₂ with 10 g. Et₂O overnight, adding 10 g. EtNH₂ to the solution, shaking with Et₂O, filtering the resulting oil (3.5 g.) dissolved in light petroleum, passing through an alumina column, treating the product (9.4 g.) with 11.5 g. picric acid in EtOH, extracting the oily picrate with acetone-EtOH, evaporating the exts., converting the oily residue into the Et₂O-insol. HCl salt (3.6 g.), and treating with HN₃, m. 70° (from EtOH); tri-HCl salt m. about 235°. N,N'-Bis(3-diethylaminopropyl)benzidine, obtained in essentially the same manner, b.p. 4. about 320°; tripicrate m. 125°. (decomposition). Bis(p-butylaminophenyl)methane, from PhNH₂ and HCHO, m. 44-5°; di-HCl salt m. 160-20°. Bis(p-heptylaminoethyl)methane was obtained by heating 2.47 g. (p-H₂NCH₂CH₂)₂CH₂ with 1 g. sodamide in dry xylene 4 hrs., adding 4.5 g. C₇H₁₅Br, refluxing 10 hrs., pouring into 100 cc. EtOH, filtering the solid, Et₂O, dissolving the oil in light petroleum, passing through alumina, distilling at 280° 2 mm., and treating in EtOH with 10% HCl; di-HCl salt (15%) m. 195-6° (from EtOH-EtO); base m. 48°. Bis(p-(2-diethylaminoethoxymethyl)phenyl)methane was obtained by refluxing 9.9 g. (p-H₂NCH₂CH₂)₂CH₂ with Et₂NCH₂CH₂CH₂Cl and 7.2 g. K₂CO₃ in EtOH overnight, purifying the oil, distilling at 0.2 mm., and recrystg. the material b. above 240° from EtOH; tetra-HCl salt m. about 167-9°; base b.p. about 280°. 4,4'-Bis(bromomethyl)diphenylmethane, m. 153-5°, is obtained in 40% yield by adding 39 g. PhCH₂Cl to a mixture of 30 g. paraformaldehyde, 77 cc. HBr, 57 cc. H₃PO₄, and 95 g. glacial AcOH, heating at 95-110° 5 hrs. with passage of 20-30 g. dry HBr into the solution, letting stand overnight, heating 8 hrs., pouring into 1 l. water, and crystallizing the precipitate from benzene. 4,4'-Bis(bromomethyl)biphenyl (35% yield) (m. 154-5°) (b.p. 280-2°) (34% yield) (m. 154-5°) (b.p. 280-2°) was obtained in a similar preparation of the aromatic alkylaminomethyl derive were prepared in a similar manner. Condensing these BrCH₂ compds. with excess alkylamines by refluxing 3-5 hrs., removing the excess alkylamine at 100° under reduced pressure, extracting the residue with 10% NaOH and Et₂O, evaporating the Et₂O, treating the evaporated oil with light petroleum, clarifying

12/25/51	454	18 01 115	ROBERT HAVLIN
		<p>the solution, evaporating, dissolving the resulting base in EtOH, filtering through filterluhr, and treating with HCl precipitated the di-HCl salts of the following listed comds. The bases were redistd. or crystallized from EtOH. 1,4-Bis(propylaminomethyl)benzene, b. about 310° (di-HCl salt sublimes >320°); 1,4-bis(butylaminomethyl)benzene-2HCl, sublimes >320°; 1,4-bis(aminylaminomethyl)benzene, b.p. 2 150° (di-HCl salt decompose >320°); 4,4'-bis(butylaminomethyl)biphenyl, m. 43.5-5° (di-HCl salt decompose >360°); 4,4'-bis(cyclohexylaminomethyl)biphenyl, m. 94.5-5.5° (di-HCl salt decompose >360°); 4,4'-bis(butylaminomethyl)diphenylmethane, m. 9-10° (di-HCl salt decompose >320°); 4,4'-bis(aminylaminomethyl)diphenylmethane, b.l. 0 238° (di-HCl salt m. 22-23°); 4,4'-bis(cyclohexylaminomethyl)diphenylmethane, m. 37-8.5° (di-HCl salt decompose >320°); 4,4'-bis(benzylaminomethyl)diphenylmethane-2HCl (di-HCl salt, 4,4'-bis(propylaminomethyl)-1,2-diphenylethane, m. 53-4.5° (di-HCl salt m. about 345°); 4,4'-bis(butylaminomethyl)-1,2-diphenylethane, m. 46-7° (di-HCl salt decompose >320°); 4,4'-bis(aminylaminomethyl)-1,2-diphenylethane, m. 7-8° (di-HCl salt m. 333° (decomposition)); 4,4'-bis(heptylaminomethyl)-1,2-diphenylethane, m. 35-6° [di-HCl salt m. 341° (decomposition)]; 4,4'-bis(cyclohexylaminomethyl)-1,2-diphenylethane, m. 115-16° (di-HCl salt decompose >360°).</p>	
IT	554211-05-SP, 4,4'-bis(benzylaminomethyl)-N,N'-dibutyl-RL: PREP (Preparation)		
	(preparation of)		
RU	554211-05-5 HCAPLUS		
CN	[1,1'-Biphenyl]-4,4'-diethanamine, N,N'-dibutyl- (9CI) (CA INDEX NAME)		



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